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ABSTRACT

This volume presents two papers synthesizing current research in second-language acquisition and reactions to these papers from the point of view of researchers in foreign language learning. The introduction by Rosario Gingras provides an overview of the research in second-language acquisition as it applies to foreign language teaching. A distinction between "second language" and "foreign language" is proposed: in a second-language context, the target language is spoken by the community outside the classroom; in a foreign language context, the target language is generally limited to classroom study. The following papers appear in the collection: (1) "The Monitor Model for Second-Language Acquisition," by S. Krashen; (2) "The Acculturation Model for Second-Language Acquisition," J.H. Schumann; (3) "The Monitor Model and Monitoring in Foreign Language Speech Communication," by K. Sajavaara; (4) "Implications of Research on Adult Second-Language Acquisition for Teaching Foreign Languages to Children," by M. Saville-Troike; (5) "Implications of Current Research on Second-Language Acquisition for the Teaching of Foreign Languages in the United States," by A. Valdman; and (6) "Second-Language Acquisition and Foreign Language Teaching," by R. Gingras. A comprehensive bibliography concludes the volume. (AMH)

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Second-Language Acquisition & Foreign Language Teaching

Edited by
Rosario C. Gingras

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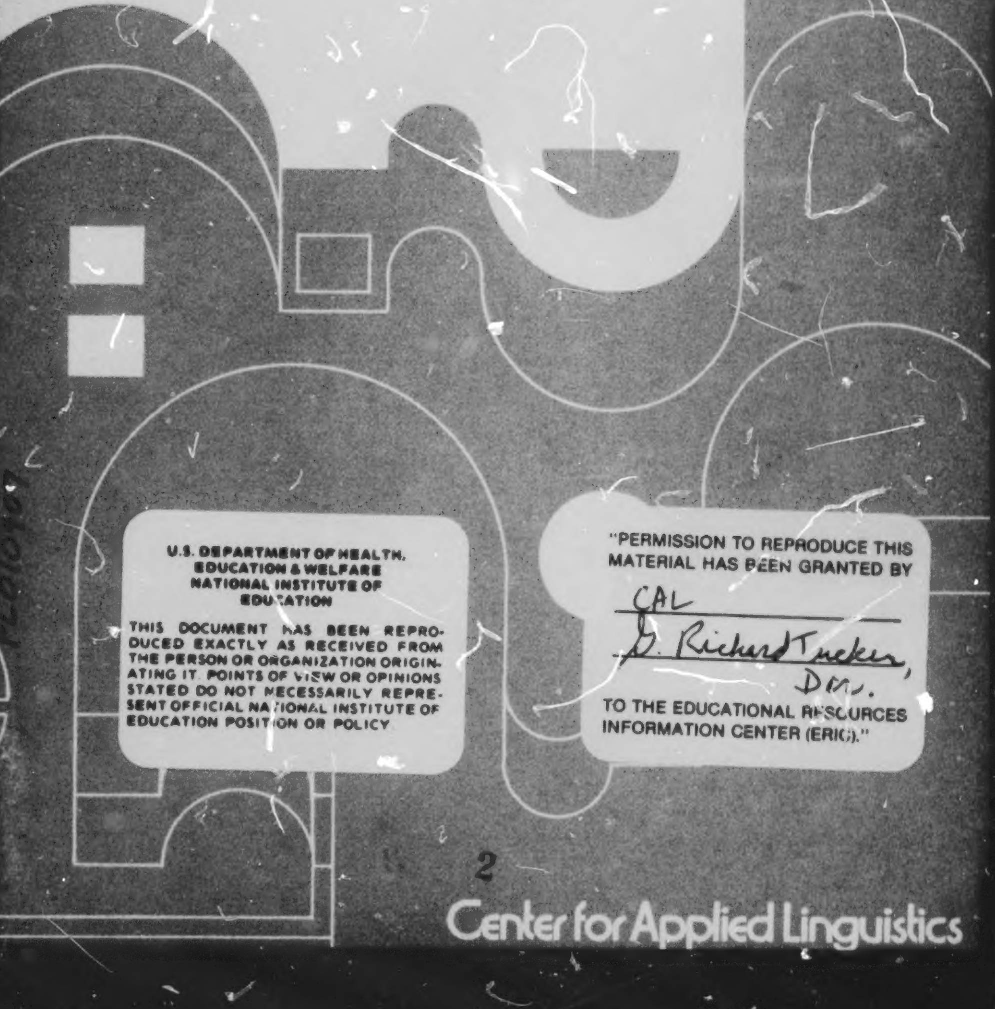

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Preface

Under a grant from the Office of Education (Title VI, Section 602, NDEA), the Center for Applied Linguistics (CAL) organized a conference that brought together nationally known scholars in the fields of second-language acquisition research and foreign language teaching. The conference was held March 10-11, 1978 in Silver Spring, Maryland.

For the conference, the Center commissioned two papers that synthesized current research in second-language acquisition which were addressed to researchers in foreign language teaching. The first commissioned paper was written by Stephen Krashen (University of Southern California). His paper--although focussing on a broad selection of topics within the field of second-language acquisition--specifically addresses the "Monitor Theory" of second-language acquisition. The second commissioned paper, by John Schumann (University of California at Los Angeles), surveys the field of second-language acquisition from the perspective of the "Acculturation Model." Along with Krashen and Schumann, CAL invited the following researchers to participate in the conference and to comment on the respective papers: Thomas Cooper (University of Georgia), Christina Bratt Paulston (University of Pittsburgh), Kari Sajavaara (Jyväskylä University, Finland), Muriel Saville-Troike (Georgetown University), Herbert Seliger (Queens College of the City University of New York) and Albert Valdman (Indiana University). Although all invited participants commented on Krashen's and Schumann's presentations, Sajavaara, Saville-Troike and Valdman submitted written comments. These appear as part of this publication. Rosario Gingras provides an overview of the research in second-language acquisition as it applies to foreign language teaching.

I express my sincere thanks to all of the participants for their contributions to this effort. I am especially grateful to Julia Petrov (U.S. Office of Education) for her expert guidance and moral support, to Begay Atkinson (Center for Applied

Linguistics) for her painstaking effort in making all of the conference arrangements and to Sonia Kundert for typing the final report and this publication. Particularly, I wish to thank and acknowledge Diane Bartosh (Center for Applied Linguistics), who kindly served as de facto editor of the final report and this publication.

Rosario C. Gingras
November 1978

Introduction

When CAL brought together nationally known scholars in the fields of second-language acquisition research and foreign language teaching, we believed that research in the field of second-language acquisition had progressed to a point where there might be general consensus among researchers as to how second-language acquisition takes place. However, this field of research is rather young, and like other newly emerging fields of scientific inquiry, disagreement over rather basic issues exists. It appears that consensus is limited to observations made in a second-language context.

It is important to emphasize the technical distinction between a *second-language* context and a *foreign language* context. In a second-language context, the L_2 (the target language which is the object of study) is spoken by the community outside the classroom and is used in many social contexts (and even may be socially required); in a foreign language context, the L_2 is generally limited to classroom study and use. The student of an L_2 in a foreign language context generally has limited contact with native speakers of the foreign language (the student's L_2). In general, in a second-language situation, the student has greatest exposure to the L_2 (and opportunities for learning/acquiring) *outside* the classroom; in a foreign language context, the student generally has most, if not all, of the exposure to the L_2 *inside* the classroom.

Most research in second-language acquisition has been done in the area of English as a second language (ESL) where, for the most part, subjects are adult college students studying English in the United States (and, hence, a second language). Consequently, much of the research in the field of second-language acquisition is *not* directly transferable to foreign language teaching contexts, but the research-based statements appear to *validate* many of the successful techniques of FL teaching. Some of the research findings also suggest certain directions and practices that need to be pursued.

A research priority for foreign language teaching should be to find out *why* students study a foreign language. Their goals and expectations need to be studied with a view toward restructuring the present foreign language curricula. Because of the possible conflict between student goals and curricular goals, curricular structure often inhibits rather than facilitates access to foreign language instruction. The goal of a foreign language class should be influenced--if not determined--by the goals perceived by the students.

Traditionally, graduate students have been offered courses in "Scientific French," "Scientific Russian," etc. to allow them to learn to read the foreign language quickly for purposes of translating technical material into English. Such courses are rarely offered to undergraduate students (and probably never to high school students). Survival skills in a foreign language are generally offered under the rubric of "Traveller's Spanish," "Traveller's French," etc. Such courses are normally available only in adult education programs and rarely--if offered at all--is any academic credit given to high school or college students for taking such courses.

While students' goals and expectations are far-ranging (and not necessarily realistic), they may be placed into two major groups: integratively-motivated and instrumentally-motivated. Some students want to study a foreign language because of identification with, or because they intend living among, native speakers of that language. Some students have more utilitarian purposes for learning a foreign language, i.e. being able to drive to Mexico without linguistic problems or for some job-related activity. Still other students may only want to learn to read the L_2 and see little need to speak it.

Surely, the instrumentally-motivated student sees spending time in a Spanish class learning the correct allophones of Spanish */b/* as a waste of time; the integratively-motivated student who may be planning on living in Mexico some day appreciates any drill in the phonological nuances of Spanish */b/*, and may expect it. This indicates a need for more research into techniques of individualized instruction in the foreign language classroom where students not only differ in the pace with which they are learning/acquiring the L_2, but where students' goals also differ.

While student goals and expectations are important, the determination of what is *actually possible* in a foreign language classroom is equally important. It should be clear by now that native-like proficiency in an L_2 for large numbers of students is probably not realistic--at least in classroom instructional situations. But, what parts of a foreign language are "teachable"? There is a strong belief that intonational patterns are very difficult to master in a foreign language. Yet, it is clear that not all intonational patterns are equally difficult. At this time, it appears that there are parts of the L_2 grammar that can only be acquired--as opposed to learned--if they are to be used effectively. For example, the determiner system in English is rarely mastered by adult students whose native language lacks overt articles. Should teachers worry about structures that have to be acquired? The identification of what is a realistic goal in foreign language teaching, coupled with students' goals and expectations, should form the bases for a realistic foreign language curriculum.

How does an individual go about becoming a speaker of an L_2? If the distinction that Krashen draws from his Monitor model between acquisition and learning is valid (and it appears to be), the distinction points to an important priority in foreign language teaching: What can foreign language teachers do to create an acquisition-rich environment? Are there activities that are particularly good for this purpose? Much research is needed in this area.

Both Krashen and Schumann point out that attitudinal and motivational factors are very important in the internalization of an L_2. In particular, research is needed on how teachers can "lower the affective filter" so that L_2 acquirers are more open to the language they hear and understand. Can teachers modify students' basic motivation toward language study (integrative vs. instrumental)? How often is integrative motivation present in adult students in a foreign language context? Should teachers even attempt to change students' basic motivation?

Much of second-language acquisition research depends on various morpheme studies that have resulted in the positing of a "natural order" of (morphemic) acquisition. To date, such studies have not been replicated using foreign language students --at least, not students of English as a foreign language (EFL). It is crucial that such studies be replicated not only with EFL subjects, but with some language other than English for which equivalent morphemes would have to be identified. If it could be shown that morphemes are acquired in the same approximate sequence for both second language and foreign language students (of English), and further, if invariant acquisition of morphemes in several languages can be determined, we could be much more confident about the ordering of grammatical content in text materials. Today, there is no principled method for choosing which structures to present in what order in the classroom. Additional morpheme studies might point out the other ways of selecting structures.

Current research stresses that for acquisition to occur, meaningful communication is needed. The construction of meaningful activities and exercises is difficult, particularly since teachers and materials writers are accustomed to thinking of instructional materials as being organized around structural patterns. This is a problem for applied research in materials development. There is considerable activity in the commercial text publishing area which purports to provide opportunity for meaningful communication in language learning classes, but there is little research showing the effect (or lack of it) of these materials.

A final research concern that deserves to be ranked high on a list of priorities is the function of aural comprehension in the classroom. In selecting material to be used in listening comprehension activities, decisions must be made whether such materials should include a diverse set of voices representing different dialects, styles, or sociolects. Other factors have to be specified. There should be extensive research into the role that aural comprehension (so-called "active" listening exercises, for example) plays in providing an acquisition-rich environment in the foreign language classroom.

Although there is no discussion of the role of testing in a curriculum that distinguishes between language acquisition and language learning, it should be clear that special attention must be given to this topic. It seems obvious that language learning is fairly easy to test (much of the testing in foreign language classrooms is the testing of material that has been learned--in contrast to what has been acquired). It is not clear how one should test for acquisition. This question should enjoy some priority.

Rosario C. Gingras

The Monitor Model For Second-Language Acquisition

Stephen Krashen

INTRODUCTION

This paper will review some current research in the area of adult second-language acquisition and performance, namely, recent attempts to support a general theoretical model accounting for experimental data as well as observed behavior in formal and informal environments. The general model will be briefly reviewed, followed by short surveys of the various subareas of second-language acquisition research where the model has been shown to be of value. Finally, some space is devoted to pedagogical implications.

The model of second-language performance, termed the *Monitor Model*, posits that the adult second-language performer can "internalize" rules of a target language via one or both of two separate systems: an implicit way, termed subconscious language *acquisition*, and an explicit way, conscious language *learning*. Language acquisition is very similar to the process children use in acquiring first and second languages. It requires meaningful interaction in the target language--natural communication--in which speakers are not concerned with the form of their utterances but with the messages they are conveying and understanding. Error correction and explicit teaching of rules do not seem too relevant to language acquisition (Brown and Hanlon, 1970; Brown, Cazden and Bellugi, 1973), but caretakers and native speakers can modify their utterances addressed to acquirers to help them understand, and these modifications are thought to help the acquisition process (Snow and Ferguson, 1977). It has been hypothesized that there is a fairly stable order of acquisition of structures in language acquisition, that is, one can see clear similarities across acquirers as to which structures tend to be acquired early and which tend to be acquired late (Brown, 1973; Dulay and Burt, 1975). Acquirers need not have a conscious meta-awareness of the "rules" they possess, and may self-correct only on the basis of a "feel" for grammaticality.

Conscious language learning, on the other hand, is said to be helped a great deal by error correction and the presentation of explicit rules (Krashen and Seliger, 1975). Error correction, it is maintained, helps the learner come to the correct mental representation of the linguistic generalization. Whether such feedback has this effect to a significant degree remains an open question (Fanselow, 1977; Long, 1977). No invariant order for learning is claimed, although syllabi implicitly claim that learners proceed from simple to complex, a sequence that may not be identical to the acquisition sequence.

The fundamental claim of the Monitor Model is that conscious learning is available to the performer only as a *Monitor*. In general, utterances are initiated by the acquired system--our fluency in production is based on what we have "picked up" through active communication. Our "formal" knowledge of the second language, our conscious learning, may be used to alter the output of the acquired system, sometimes before and sometimes after the utterance is produced. We make these changes to improve accuracy, and the use of the Monitor often has this effect.

There are two important constraints on the use of the Monitor. As pointed out in an earlier paper on this topic (Krashen, 1976), the performer must have *time* in order to monitor. In normal conversation, both in speaking and listening, performers generally do not have time to think about and apply conscious grammatical rules, and we see little or no effect of the Monitor in these situations, as we shall see later. This condition, however, is necessary but not sufficient. Heidi Dulay and Marina Burt have pointed out to me that a performer may have time but may still not monitor, as he may be completely involved with his message. There is, thus, a second condition: the performer must be "focussed on form," or correctness. As we shall see below, the second condition predicts some recent data nicely.

Note that the model allows us to self-correct using acquired knowledge of language, or our "feel" for correctness. That is what native speakers generally do in the case of speech errors. The point is that conscious learning is only available as a Monitor.

In the last few years, the Monitor Model has been shown to be useful in explaining a variety of phenomena in the field of second-language acquisition. While many of these phenomena may have alternative explanations, the claim is that the Monitor Model provides for all of them in a general, non *ad-hoc* way that satisfies the intuitions as well as the data. Several of these phenomena are reviewed here, followed by a discussion of how the second language classroom may be utilized for acquisition and learning.

CURRENT RESEARCH

The Morpheme Studies: A Brief History

The study of grammatical morphemes has been particularly fruitful for understanding the mechanisms involved in second-language acquisition by adults. Aside from merely telling us in what order certain structures are, in fact, acquired, these studies have also been of value in revealing the domain of the acquired and learned grammars, when performers appeal to conscious learning and when they do not.

The history of morpheme studies in language acquisition begins with Brown's demonstration (Brown, 1973) that children acquiring English as a first language show a similar order of acquisition for grammatical morphemes in obligatory occasions. Certain morphemes, such as *ing* and *plural* tend to be acquired relatively early, while others, such as the third person singular /*s*/ on verbs in the present tense (third, singular) or the possessive *'s* marker tend to be acquired late. Brown's longitudinal findings were confirmed cross-sectionally by de Villiers and de Villiers (1973). This discovery was extended to child second-language acquisition by Dulay and Burt (1973, 1974a, 1975) in several cross-sectional studies, by Kessler and Idar (1977) and by Rosansky (1976), who has a rather different view of her results, to be discussed below. The child second-language order was not identical to the child first-language order, but there were clear similarities among second-language acquirers. (As I have pointed out in several places [Krashen, 1977b; Krashen, Butler, Birnbaum and Robertson, in press; Krashen, in press], this appears to be due to differences in the rank order of free morphemes, especially copula and auxiliary, which tend to come later for the first-language acquirer.)

The discovery of the "natural order" has allowed us to probe the interaction between language acquisition and language learning in the adult performer: we have interpreted the presence of the "natural order" (the child's order of acquisition or difficulty order) in the adult performer as a manifestation of the acquired system without substantial interruption or contribution from the conscious grammar, or Monitor.

As we shall see, our current results dove-tail nicely not only with our intuitions about the use of conscious rules but also with speculations and results from other areas of second-language acquisition research.

Grammatical morpheme studies with adults began with our finding (Bailey, Madden and Krashen, 1974) that adult second-language acquirers (ESL students at Queens College) showed a "natural order" for eight grammatical morphemes, a difficulty order similar to that found in child second-language acquirers by Dulay and Burt, with oral language elicited by the Bilingual Syntax Measure (BSM) (Burt, Dulay and Hernandez, 1975). We also reported no difference in rank order between Spanish speakers and non-Spanish speakers, which was consistent with Dulay and Burt's finding of no first-language influence in the child second-language study (Chinese-speakers and Spanish-speakers; Dulay and Burt, 1974a). We also noted that our difficulty order was similar to the order found by de Villiers and de Villiers

(1973) for adult agrammatics.

Following our study, Larsen-Freeman (1975) reported a "natural order," again cross-sectionally, for both BSM elicited speech and an imitation task. Her own tests, which included "reading," "writing" and "listening," did not show a natural order, and I speculated (Krashen, 1976, 1977a) that this was due to the intrusion of the conscious grammar, which caused an elevation in the accuracy of those items that were "easiest" to learn (third person singular morpheme, regular past morpheme). When performance is "Monitor-free" (with little time, the focus on communication and not form), we thus see the "natural order" for grammatical morphemes, a difficulty-order similar to that seen in the child. When performance is "monitored," the natural order is disturbed. The BSM, it was suggested, is such a Monitor-free test, while Larsen-Freeman's pencil and paper "grammar-type" tests invite the use of the Monitor. We return to Larsen-Freeman's results below.

Our study using the SLOPE test--an oral production test designed by Ann Fathman--confirmed our earlier results. Again, adult performers showed a difficulty-order similar to that seen in children acquiring ESL. Again, there was no strong first-language influence. Also, there was no difference in rank order between formal learners and informal acquirers, the former group being those who reported having had a great deal of instruction in English and little real chance to use it, and the latter being those who reported a great deal of real-world exposure to English, but little or no classroom instruction. Our interpretation of this result was that both groups were dependent on the acquired system, since the test did not encourage conscious Monitoring (Krashen, Sferlazza, Feldman and Fathman, 1976).

At about this time, Roger Andersen (1976) reported a "natural order" for adult ESL students in Puerto Rico using compositions. We also undertook a composition study soon after (Krashen, Butler, Birnbaum and Robertson, in press). In our study, we asked ESL students to write under two conditions: *fast*, in which they were told to write as much as possible in a short time (in the style of Brière's 1966 "Quantity before Quality" study) and *edited*, in which they were encouraged to go over their work carefully. We found a natural order in both conditions, with only small evidence of a contribution from the conscious grammar in the edited condition. Our interpretation of these results was that students were concerned with communication when writing rather than with form; apparently the "focus on form" condition for Monitor use discussed earlier is more crucial for bringing out the Monitor than is the "time" condition. Our subjects did indeed have time, but they did not use it for the conscious grammar, for conscious Monitoring. This is not to say they did not edit; it does imply that when they did edit, they did not use their conscious knowledge of language to any great extent when communication was the issue.

Our most recent study confirms this, and suggests that it may take a very special kind of task to force subjects to use the Monitor. (This is not to say we feel Monitor use is inherently good. We are interested here in the theoretical question of when people use it and when they do not.) Noel Houck, Judith Robertson, and I have just completed a study in which we asked USC ESL students to transcribe their own speech and then to correct their own transcripts. Both activities showed a natural order for grammatical morphemes, despite the fact that at least some of the corrections were aimed at morphology. We were struck by the fact that natural orders, at least in our laboratory, were turning up everywhere, and we replicated one of the few studies that reported to give an unnatural order, Larsen-Freeman's "writing" task. The replication was successful; this task again produced a clearly unnatural order, one that was nearly identical to Larsen-Freeman's reported order. While both tasks seem to imply a focus on form (self-correction and the writing task), there are crucial differences. In their self-corrections, the students were not focussed on a particular item or on a specific rule, and apparently did the task on the basis of their "feel" for grammaticality. Their corrections were apparently motivated by their desire to communicate (Houck and Robertson, n.d.). In Larsen-Freeman's writing task, which included sentences like, *Last year he (work)* ____ *in a factory*, where the subject only had to correctly inflect the verb, there might have been a greater tendency to call forth conscious rules for specific items. In other words, Larsen-Freeman's task was what is called a *discrete-point* test, while ours was not. This leads to the interesting hypothesis that it takes a discrete-point test to bring out conscious learning while anything less does not, at least for subjects who have had a chance to do a meaningful amount of natural acquisition. Thus, we might expect a discrete-point test to yield an unnatural order and an integrative test to yield a natural order. So far this is what we have found. (In a previous paper [1976], I suggested that integrative tests were not necessarily acquisition tests. In those days, I had only considered the time element as the necessary condition for Monitor use. This was clearly inadequate, and I thank Heidi Dulay and Marina Burt for pointing out that having time is not sufficient to ensure Monitor use, and John Oller for pointing out that my conclusions on integrative testing were premature, suggestions that are certainly confirmed by this current data.)

Janet Fuller's recent dissertation (Fuller, 1978) also speaks to this point. Fuller administered the SLOPE test to adult ESL subjects in both written and oral versions. She tested the effect of first-language acquisition (Indo-European vs. non-Indo-European) on second- versus third- language acquisition and order of presentation. In general, there were no significant differences for any of these contrasts. She also found no significant rank order differences between the oral and written versions, despite the fact that performers clearly had more time for the written version. In Krashen, Sferlazza, Feldman and Fathman (1976), we had attempted to run a written version of the SLOPE with our subjects but could not analyze the data due to ceiling effects; we noted a clear rise in third person singular rank order, however. Are Fuller's results consistent with the hypothesis that conscious learning is brought out only by a discrete-point test?

The SLOPE test does ask the subject for an item in a slot, and to that extent it has some of the characteristics of a discrete-point test. A SLOPE item might look like:

Here is a ball. (Picture)
Here are two ________. (Picture)

This differs in a crucial way from the example given above from Larsen-Freeman's test. In this SLOPE the subject contributes the entire item, while for many items in Larsen-Freeman's writing test the subject need only inflect a given form. This may focus the subject more clearly on *form*. Whether this is the crucial difference remains to be seen and can easily be tested.

Also, these results may not hold for foreign language as well as second-language performers. Generally, foreign language students have less access to language acquisition and rely more on learning. It would not be at all surprising if foreign language students show a greater learning effect, manifested by more "unnatural orders." EFL students in other countries might provide the crucial data here.

Objections to the Adult Natural Order

There have been some critiques and objections to this seemingly clear and consistent picture. First, several scholars have suggested that the adult natural order is an artifact of the use of the BSM (Porter, 1977; Hakuta and Cancino, 1977; Rosansky, 1976). This suspicion was based on the following circumstantial evidence: the Dulay and Burt child second-language studies used the BSM, the Bailey et al adult study used the BSM and when Larsen-Freeman used the BSM she obtained a similar order, but when she used other tasks she did not. Also, Porter (1977) reported that child first-language acquirers produced what appeared to be the *second*-language acquisition order when the BSM was used; as pointed out above, first- and second-language acquisition orders are somewhat different. While this evidence is at first glance suggestive, recent studies and re-analyses show conclusively, I believe, that the natural order is not an artifact of the BSM. First, we have obtained the natural order without the BSM, in the composition studies cited above, and more recently using adult-free (spontaneous) speech (Krashen, Houck, Giunchi, Bode, Birnbaum and Strei, 1977). Also, the SLOPE test gives an order quite similar to that found in the grammatical morpheme studies (Krashen et al, 1976; Fuller, 1978. Some of this data was obtained and reported on after this objection was raised.). Second, Porter's child first-language BSM order is not at all dissimilar to first-language orders previously published in the literature (rho = .67 with de Villiers and de Villiers [1973] which just misses the .05 level of significance, quite impressive for a rank order correlation using just seven items).

Another set of objections, raised by Rosansky (1976), is that: (a) cross-sectional orders do not match longitudinal orders and (b) individual subjects do not match groups of subjects. I have also discussed this elsewhere (Krashen, 1977b), and have concluded that when morpheme accuracy counts based on fewer than 10 obligatory occasions are eliminated from analyses, there is rather good agreement between longitudinal and cross-sectional studies and little individual variation exists. In this paper, I also identified an "average" order for both cross-sectional and longitudinal studies, individuals and groups, and child and adult studies, the claim being that all will yield a rank order for grammatical morphemes similar to this average order. (In fact, a few studies do miss the .05 level of significance, but not by much.) The only true exception I found was Hakuta (1974), a study of one child second-language acquirer (Uguisu), who produced an order that correlates only weakly to the average order. Rosansky (1976) reported that for her subjects, BSM-based data and spontaneous speech data "reveal no significant correlations." For example, for her two adolescent subjects, correlations between BSM data and spontaneous speech at one cross-section are .088 and .51. A single administration of the BSM, however, does not typically yield enough obligatory occasions of a single morpheme to give a real picture of a subjects' score--one rarely sees more than five examples of a single morpheme. Also, a given cross-section for one subject may not contain enough obligatory occasions for some of the less frequent morphemes. For example, Jorge's (Rosansky's subject) cross-section (r=.088) contained only four obligatory occasions for the past regular and only four for the possessive.

Another problem with Rosansky's cross-sections, which was also pointed out by Hakuta and Cancino (1977), is the obvious ceiling effect caused by very high accuracy for certain morphemes. Consider the following cross-section, from Rosansky's subject Jorge, 10 months into the study.

morpheme	percent correct
ing	95
sh plural	93
article	94
copula	98
auxiliary	98
possessive	100 (4/4!)
irregular past	80
regular past	50 (2/4!)
third person singular	11

While there is no law preventing an investigator from using rank order statistics with such compressed data, it seems to me to be unreasonable. This cross-section has several morphemes that are being produced very accurately (Brown would consider them "already acquired" with over 90% correct responses). Other morpheme scores appear to be based on too few obligatory occasions. This cross-section is not at all untypical (see Rosansky's tables 5 and 12, 1976). Nevertheless, when the less frequently occurring morphemes are eliminated, as I did in Krashen 1977b), Rosansky's data is quite consistent with everyone else's.

A final objection that has been raised to the adult natural order is that merely dealing with morphemes in obligatory occasions may fail to reveal at least some aspects of language acquisition, the overgeneralizations and the intermediate forms that acquirers go through. I believe that this is perfectly true, but it does not detract at all from the validity of the results of the morpheme studies. The observed morpheme order is the result of the interplay of the underlying processes of acquisition, and they only show the product--the surface order of acquisition. They do not directly reveal the pathway the acquirer took in arriving there. Nevertheless, there is no reason to assume the obtained order is invalid; it has been shown to be highly reliable, and for the adult, occurs in predictable situations. There is as yet no counter evidence to the hypothesis that the existence of the natural order in the adult is indeed a manifestation of the creative construction process, or language acquisition.

Aptitude and Attitude

Another area of second-language research that the Monitor Model helps to interpret is work in second-language aptitude and attitude. Aptitude, which is measured by tests such as Carroll and Sapon's *Modern Language Aptitude Test* (MLAT) and Pimsleur's *Language Aptitude Battery*, may be directly related to conscious learning. There are several reasons for suspecting this to be true. First, two of the three components of second-language aptitude (Carroll, 1973) *look* very much like they require a conscious meta-awareness of language that is quite similar, if not the same as conscious learning. One of these, "grammatical sensitivity," is tapped by MLAT's subtest, "Words in Sentences," which asks the testee to pick out the word or phrase in one sentence that "does the same thing" in that sentence as a capitalized word in another sentence. Here is a well known example:

1. He spoke VERY well of you.
2. $\underset{1}{\underline{\text{Suddenly}}}$ $\underset{2}{\underline{\text{the}}}$ music became $\underset{3}{\underline{\text{quite}}}$ $\underset{4}{\underline{\text{loud}}}$.

The answer is (3). It is interesting that not all adults do this kind of task equally well, and that those who can do it tend to do better in formal language learning. Performance in this task appears to be related to general intelligence (Carroll, 1963) makes it clear that while performance on "Words in Sentences" does not require explicit knowledge of grammatical terms, it does involve a conscious awareness of language and grammar, quite different from the tacit knowledge or "competence" Chomsky (1965) claims all native speakers have of their language.

Another component of language aptitude, according to Carroll (1973), is "inductive ability." This is defined as the ability to "examine linguistic material...and from this to notice and identify patterns and correspondences and relationships involving either meaning or grammatical form." Inductive ability is measured by presenting materials in an artificial language, and asking the testee to induce the grammatical and semantic rules so that he can judge whether additional sentences are part of the language. This also appears to involve conscious learning, because the goal of such an exercise is the discovery of an explicit, abstract set of rules by means of a problem-solving approach. The linguist uses the same process in writing a grammar from a corpus.

Not only do two of the three components of aptitude look like they involve conscious learning (the third is phonetic ability, which I am not prepared to discuss), scores on aptitude tests show a clear relationship to performance on "monitored" test situations and when conscious learning has been stressed in the classroom. Several studies support this. First, the validity of aptitude tests is usually determined by correlating scores on aptitude tests with grades in foreign language classes and/or with pencil and paper grammar tests (Pimsleur, 1966; Carroll, 1963). Such correlations are often, but not always, high. Similarly, Gardner (Gardner and Lambert, 1972) concludes that for French as a second language in Canada "language aptitude appears to be of major importance in the acquisition of second-language skills acquired through direct instruction." Other studies by Gardner and Lambert (1972) and Gardner, Smythe, Clement and Gliksman (1976) confirm that aptitude relates more to classroom skills than to communicative skills. Also of interest is Bialystok and Frohlich (1977), who report that in ninth- and tenth-grade French as a second language (Toronto), aptitude scores correlated with self-reports of conscious monitoring (in one of two schools examined).

Second-language attitude refers to acquirers' orientations toward speakers of the target language as well as personality factors. It seems to be the case that such factors relate directly to acquisition and only indirectly to conscious learning. Briefly (see Krashen, in press, for details), the "right" attitudinal factors, the presence of an integrative motivation and an optimal amount of self-confidence, produce two effects: they encourage intake, or useful input, and they allow the acquirer to utilize this intake for acquisition. In other words, "motivational variables...determine whether or not the student avails himself of...informal language contexts" (Gardner et al, 1976; see also Oller, 1977) and they contribute to a lower "affective filter" (Dulay and Burt, 1977) making the acquirer more open to the language he hears and understands. Evidence that this generalization is true is the fact that the relationship between various facets of attitude and second-language proficiency is strongest when performers have had sufficient intake for acquisition (e.g., in second language as opposed to foreign language situations) and when monitor-free measures are used.

There is a considerable amount of data supporting this hypothesis. Typical reports include Gardner's claim that in the Canadian situation the integrative motive is especially important "for the development of communicative skills" (Gardner and Lambert, 1972; confirmed by Gardner et al, 1976). The effect of integrative motivation seems to be weaker in situations where intake is not so easily available (e.g., the foreign language situation in the United States; see Gardner and Lambert, 1972; Oller, 1977); where there is a special urgency about second-language acquisition (e.g., the Philippine study in Gardner and Lambert, 1972; see also Lukmani, 1972); or where political ill-feelings toward speakers of the target language exist (Oller, Baca and Vigil, 1977). Personality factors relating to self-confidence (positive self-image, low anxiety, empathy and others) have also been shown to relate to second-language proficiency and also appear to relate more directly to acquisition (reviewed in Krashen, in press).

If the direct relationship between attitudinal factors and language acquisition does in fact exist, and if our major goal in language teaching is the development of communicative abilities, we must conclude that attitudinal factors and motivational factors are more important than aptitude. This is because conscious learning makes only a small contribution to communicative ability.

Individual Variation

The Monitor Model also predicts at least one important aspect of individual variation in adult second-language performance. Some people seem not to use a conscious grammar at all, and are apparently immune to the effects of error correction. One "under-user" said, "I know that everytime I speak it's pretty correct, so I never think about grammars. I just write down whatever I feel like it" (Cohen and Robbins, 1976). The under-user relies mostly on his "feel" for correctness in self-correcting. The Monitor "over-user" monitors all the time, and as a result exhibits little fluency. Here is a typical quote: "I feel bad...when I put words together and I don't know nothing about the grammar" (Stafford and Covitt, in press). Monitor "optimal users" are those performers who monitor when it is *appropriate*, when there is time, such as in writing and prepared speech, and when it does not interfere with communication.

Such performers use the conscious grammar as a supplement, and really good optimal users may in fact achieve the illusion of native speaker competence in written performance (Krashen and Pon, 1975).

The over-user may do quite well on a discrete-point grammar test and also show a high degree of second-language aptitude, but may also be unable to really communicate in the second language. On the other hand, an under-user could do quite poorly on grammar and aptitude tests and be able to get by quite well. This leads to the conclusion that grammar and aptitude tests should not be the sole basis for measuring and predicting second- and foreign-language achievement. It may be the case that the truly outstanding performer, the "good language learner," may be the person who has harnessed both acquisition and learning. He will show high aptitude, do well on grammar tests, and also have the constellation of attitudes and motivations that are associated with successful acquisition. Such performers keep grammar in its place, however, using it to fill gaps in acquired competence when such monitoring does not get in the way of communication.

Factor Analyses of Second Language Proficiency Tests

Some recent results in factor analyses of second-language tests confirm and help to further clarify the interaction of acquisition and learning with formal and informal environments, and also give us more information on second-language testing. In a recent series of papers, Oller and associates (Oller, 1976; Oller and Hinofotis, 1976) have claimed that factor analysis supports their hypothesis that a single factor underlies second-language performance on all tests.

In earlier studies, however, other researchers have come up with two or more factors after factor-analyzing language tests. It may be the case that Oller's position is correct, and that those who also find more than one factor are correct as well, if one posits that the Monitor Model is correct. Briefly, the single factor in Oller's studies may represent language *acquisition* ability, and when other factors enter in, they reflect language *learning* ability. Moreover, one finds the appropriate solution just when it is expected: single factor solutions in acquisition-rich environments (e.g., second language as opposed to foreign language situations; a problem for this analysis is the fact that many of the subjects used in Oller's studies were "incoming" ESL students, which means that their second-language experiences may have been mostly in foreign language environments) and where tests tend to be more integrative and less discrete-point. Also, the factors in the two-plus solutions are readily identifiable in terms of acquisition and learning. Table 1 summarizes these results. Note in Table 1 that the Gardner and Lambert (1972) study was done in a more extreme foreign language situation (the United States) than the Gardner

(1960) study, which was done in Montreal, where French is available outside the classroom. In the United States, less interaction in the target language is likely outside the classroom. This might explain the lack of a clear acquisition factor.

TABLE 1

Factor Analyses of Second Language Aptitude Tests

Single Factor Solutions

1. Oller and Hinofotis, 1976: Second Language--mostly integrative.
2. Oller, 1976: Second Language--mostly integrative.
3. Oller (Carbondale Project): Second Language--integrative.

Two or More Factor Solutions

1. Gue and Holdaway (1973): Foreign Language, TOEFL.
Factor I: "Formal Knowledge"--structure, writing ability subtests.
Factor II: "Comprehension"--listening comprehension, reading subtests.

[illegible]. Gardner (1960): Foreign Language (French in Montreal).
Factor I: "School French Achievement."
Factor II: "Communication Skills."

3. Gardner and Lambert (1965): Foreign Language (French in US) [extreme?].
Factor I: "Linguistic Reasoning"--includes MLAT, reading, grammar.
Factor II: "School French Achievement"--grammar, grades, MLAT "Words in Sentences."
Factor III: Vocabulary.
Factor IV: Oral French Reading.
Factor V: "Intelligence."

4. Michael and Jones (1961): ESL at USC.
Factor I: "Mechanics and Structure"--includes Lado Michigan test.
Factor II: "Verbal Comprehension."
Factor III: "Oral Comprehension."

It is interesting to note that several of the subtests used by Oller et al were indeed labeled "grammar." An examination of the nature of these tests, however, shows that they were more integrative than discrete-point in nature. For example, in one study (Oller, 1976), one grammar test asked students to select a word or phrase to fill in a blank. On another, they unscrambled word order. As discussed earlier, our current research is leading us to hypothesize that in order to bring out the conscious grammar in full force for most performers, one needs to inform them not only that a potential error exists, but also to indicate where that error might be. (See review of the morpheme studies, above.)

Some grammar tests do indeed focus attention on individual items, and it is here that we see the Monitor in full force. Consider this example from the Michigan Examination in Structure:

(1) Are there any fish (in) (on) Lake Titicaca?
or
(2) John eats too (much) (many) fish.

Such items tend to encourage conscious rule use (although they may be done by "feel" and may even require acquisition if the rule is difficult). It is interesting that the Michael and Jones (1961) study listed in Table 1, which was second language but was analyzed as more than a single factor, included this test. Also, Larsen-Freeman's reading and writing tasks (Larsen-Freeman, 1975), which produced "unnatural" orders for grammatical morphemes, were also of this type.

First-Language Influence

Finally, the Monitor Model helps to illuminate the question of first-language interference. I have suggested elsewhere (Krashen, 1977b) that the first language may serve as a substitute utterance initiator in cases where early production is required and too little of the second language has been acquired. This is precisely Newmark's position (Newmark, 1966): performers "fall back" on the first language when they do not have enough acquired competence in the second language. This hypothesis predicts several phenomena, which so far have turned out to be true. Those structures that second-language acquirers tend to acquire earliest and easiest may also be those which show first-language influence (e.g., word order phenomena) (Duskova, 1969; Grauberg, 1971; LoCoco, 1975; Politzer, 1968). Also, "interference" (really first-language influence) is most prevalent in acquisition-poor environments, such as foreign-language situations. It is rare in normal ("playground") child second-language acquisition (Dulay and Burt, 1974b). It is very interesting that children acquiring second languages generally go through a "silent period" during which they may be building up acquired competence via active listening. Their output during this period consists, for the most part, of prefabricated rather than creative language (Huang and Hatch, forthcoming). This stage may correspond to the adult use of the first language as a "filler."

The recent success of "input methods" that require basically active listening while the teacher or informant speaks the target language is quite consistent with this view (Terrell, 1977; Asher, 1966; Gary, 1975). It is meaningful *intake* that allows acquisition to occur. Speaking comes with time. Too early production before sufficient acquisition is built up results in the use of the surface structure of the first language.

One can produce sentences in a second language remarkably early without acquired competence. Sentences can be produced by inserting second language vocabulary into the first language surface structure, and using the Monitor to make alterations in places where the first- and second-language surface structures are different. This is performance without acquired competence, and any language science professional can use this system to begin talking in a second language within hours. One could argue that this mode has advantages, in that it allows one to converse from the very start and thereby encourage intake. It is very limited, however, as it requires continuous mental gymnastics and can go only as far as the user's conscious grammar will take it. Also, there is a better way--the use of the creative construction process, or language acquisition.

Child-Adult Differences

As discussed in detail in Krashen (in press), the learning-acquisition distinction also helps to explain child-adult differences in attainment in second-language performance. The monitor--the conscious grammar--may owe its source to Piaget's "Formal Operations" stage. Around age 12, according to Inhelder and Piaget (1958), the child grows significantly in his ability to think abstractly; for the first time, he is able to relate abstract constructs to other abstractions, dealing with them as if they were objects. This new ability may allow the adolescent to conceive of an abstract theory of a language or a grammar.

Formal operations may indirectly contribute to the typical adult's inability to acquire a second language perfectly, since they may be at least partially responsible for psychological changes that cause an increase in the affective filter. Elkind (1970) has argued that formal operations may induce feelings of vulnerability and a reluctance on the part of the adolescent to reveal himself. These feelings arise from the adolescent's heightened ability to think abstractly: he now considers other people's thoughts, and falsely assumes that they are as concerned about his behavior as he is. The affective consequences of formal operations may have a particularly strong effect on the "over-user" of the Monitor, and, at least to some extent, appear to last for a long time. As detailed in Krashen (in press), this hypothesis leads to several successful predictions: aptitude, it appears, has a weaker relationship to child second-language proficiency than it does to adult second-language proficiency. This makes sense since aptitude relates directly to conscious *learning* which plays a lesser role in the child. Also attitudinal factors appear to relate to child second-language acquisition, just as they do to adult second-language acquisition.

IMPLICATIONS FOR LANGUAGE TEACHING

If the acquisition-learning distinction is valid, and if acquisition is the central process whereby adult second-language ability is attained and manifested, it follows that a central task, if not *the* central task, for language teaching is to encourage language acquisition, whether in the class or outside of the classroom. In this section, we will discuss the necessary conditions for language acquisition in general--child or adult. In other words, we will attempt to define the term *intake*, the input language that acquirers can actually utilize for language acquisition. We will rely on child language acquisition literature, specifically the literature on caretaker speech, in an attempt to arrive at a definition of intake. Following this, we will examine some typical classroom activities to see to what extent they fit this definition.

Two brief sections conclude this paper. In one, the role of *speaking* in encouraging acquisition is examined. It is suggested that speaking plays only an indirect role in language acquisition, in that it may encourage input/intake. Finally, the possible benefits of conscious language learning are listed. While acquisition is central, learning may be of value for a variety of reasons for many students.

Encouraging Language Acquisition in the Adult or Providing *Intake*.

The Characteristics of Intake. The literature in child language acquisition strongly suggests that overt teaching, in forms of explicit rules and feedback, is not of value in encouraging language acquisition (Brown and Hanlong, 1970; Brown, Cazden and Bellugi, 1973). Adults generally focus on what children say, not how they say it, and there does not seem to be any communication pressure shaping grammatical development. It does seem to be the case that adults can and do behave in such a way so as to encourage language acquisition, even though the conscious purpose of such behavior may not be language teaching. I refer to the phenomenon referred to in the literature as "motherese," or more generally, "caretaker" language. Studies of caretaker speech are increasingly numerous in the literature, and, in my opinion, they are of crucial importance for all aspects of language acquisition, child and adult. Their most important potential contribution to adult second-language acquisition is the help they can give us in arriving at a definition of intake. *Intake*, a term first used by Corder (1967), refers to that input that enables an acquirer to acquire more of a target language. It is a proper subset of input. Input may include a great deal of language that is of no help in the acquisition process. We know, for example, that a strange language heard on the radio is input, but not intake--no one could ever learn or acquire a language from such a source. (See Hatch, 1977, for some examples from science fiction where it is presupposed that this is indeed possible. Humans, however, can't do it, only aliens can!) Less obviously, at least some language from television is also input but not intake--it is inappropriate for acquisition--my own children watched Villa Alegre faithfully for years, and acquired about as much as I did. They can count from one to 10 in Spanish and recognize a few words, like *casa* and *mesa*. Even language from the real world can fail as intake: my parents spoke Yiddish around the house for years, occasionally to each other (for secrets) and constantly to my grandparents. All my sister and I acquired of Yiddish was a few expressions. This also was input but not intake.

Some hint of what may be necessary for acquisition to occur, for input to be intake, can be found by examining properties of caretaker speech. While we have no direct evidence showing that caretaker speech is necessary for child language acquisition, it is probably quite helpful (Cross, 1977). The hypothesis proposed here is that caretaker speech contains mostly intake for the child, and a survey of its properties will give us some real clues as to what intake is. The following is my attempt to list the crucial ingredients of caretaker speech to children. It is rather over-simplified, and the interested reader is advised to refer to Cazden's excellent chapter (Cazden, 1972), Clark and Clark's summaries (Clark and Clark, 1977) and to the recently published collection by Snow and Ferguson (1977).

Perhaps the most outstanding feature of caretaker speech is that its purpose is not to explicitly teach language. Rather, it is used by caretakers to help children *understand*, to get the child to "do as he is told right now" (Newport, Gleitman and Gleitman, 1977). In order to do this, caretakers modify their speech.

They talk mainly about the "here-and-now" to young children, focussing on what children are doing, what has just happened, and what can be seen, touched and heard. The here-and-now aspect of caretaker talk, as Newport et al pointed out, is a "topical constraint." "Mothers want their children to drink their juice and clean up the playroom, so these are things that are talked about." Limiting to the here-and-now also helps to ensure extralinguistic support to aid comprehension.

Caretakers use short, simple sentences that become more complex as the child gets older ("maternal accommodation," Phillips, 1973). However, this does not mean that syntax is "finely tuned" to the child's progress. It has been noted that mean length of utterance (MLU) is generally slightly in advance of the child's MLU in caretaker speech, but there does not seem to be a neat sequence of structure presentation in the input followed by sequential acquisition by the child. The relation between input order and acquisition does make sense, however, as Newport et al have elegantly shown. For example, many input studies have shown that caretaker speech contains an apparent paucity of subject-verb-object (SVO) sentences and a plethora of questions. At first glance, this seems to present a problem for the acquirer, since logically one would expect more canonical forms for the beginner, as many teaching sequences provide. However, providing many questions at first may be very useful for the beginner: the yes/no question places the auxiliary in the salient initial position (Ervin-Tripp, 1973), and Newport et al report that the development of the auxiliary is highly correlated with the frequence of yes/no questions in the input (r=.88, which is extremely high for this kind of research), but not correlated with the frequency of *wh* questions (where the auxiliary is in the less salient medial position) or imperatives (which lack the auxiliary entirely).

Caretakers repeat themselves frequently in terms of syntactic patterns used. It is not clear whether this repetition is actually helpful in child language acquisition. Several scholars have suggested (Cross, 1977; Newport et al, 1977) that frequent repetition is a result of the child's failure to understand. Parents repeat more when they feel they need to.

Caretakers slow down by inserting longer pauses. Pimsleur, Hancock and Furey (1977) recommended that second language teachers "speak at a normal rate from the start--but that they train themselves to pause more frequently than they would in normal conversation." See Stevick's (1974) discussion of the value of silence in his review of *The Silent Way*.

"In correcting children's language, adults seem primarily concerned with the ability to communicate with a listener" (Clark and Clark, 1977). This corroborates Brown's findings, surveyed earlier. If caretaker speech is indeed helpful in encouraging acquisition, whether it is intended to or not, one could speculate that intake, optimal input for acquisition, may have the following characteristics.

1. Intake is *understood* by the acquirer. This is done by means of the acquirer's current competence and extralinguistic competence. Stated differently, if an acquirer is at a stage G_i of grammatical development, he or she can progress to the next stage $G_i + 1$ by *understanding* $G_i + 1$ syntax with the aid of context. Caretakers help guarantee comprehension of their speech to children by tying it into context--to the here-and-now. Points 2 through 4 follow from point 1.

2. Intake is at or slightly in advance of G_i, the acquirer's current stage of grammatical competence. There is some very interesting evidence from child language acquisition research that indicates that children are in fact "tuned in" to input that is at their stage or "just beyond" and that, in fact, they "tune out" to language that is far beyond their level (Shipley, Smith and Gleitman, 1969).

3. Intake is sequenced; it gets progressively more complex. This derives from the "maternal accommodation" effect noted above. Note, however, that the optimal sequence is not obvious, and not derivable from a linguistic description alone (see discussion above of Newport, et al's findings on yes/no questions and AUX development).

4. Intake is natural communication. This point derives from

the well-established fact that caretakers employ caretaker speech in order to communicate with their children and not to teach them language. Acquisition seems to occur best when language users focus on the message and not on the form. This same point has been made repeatedly by many scholars, including Stevick (1975, see especially Principle 1), Newmark (1966), Dulay and Burt (1973) and Upshur (1966).

Wagner-Gough and Hatch (1975) have pointed out that caretaker speech is often available to the child second-language acquirer in the informal environment, but it is not necessarily available to the adult, and it is my view that one of our main responsibilities--if not our most important one--is to provide the adult acquirer with intake, either inside the classroom or outside. Current research suggests that the second-language classroom often does provide intake at least some of the time (see e.g., Gaies, 1977). It is, nevertheless, a useful exercise to consider various classroom activities and to what extent they satisfy the requirements for intake. If acquisition is indeed central as our research has suggested, we need to know to what extent we are encouraging acquisition in the second-language classroom.

Analysis of Classroom Activities in Terms of "Intake"

Free Conversation. For elementary and intermediate level second-language acquirers, free conversation may or may not meet the first three requirements for intake. Free conversation in the target language is often not understood, may or may not be at the acquirer's level or just beyond it and is practically never progressive. A skilled teacher may be able to control his or her own speech to meet these requirements, but this is a challenging task. The same comments apply to language heard on the radio or TV: it will be optimal intake only when these requirements are met.

Free conversation, radio or TV might be quite useful for the high-intermediate or advanced acquirer, and may, in fact, be the only way certain structures can be acquired, as material preparation for some parts of the target language may be difficult and simply may not exist.

Manipulative and Mechanical Drill. At the other extreme, manipulation or mechanical exercises, where there is no attempt to actually communicate an idea (including substitution and repetition drills) also fail to completely satisfy intake requirements. Such use of language in isolation may be understood for its propositional content, but soon loses this effect. Paulston (1972) warns that overuse of this drill type produces tedium, and Lee, McCune and Patton's study (1970) of the rapid decline of orienting response to mechanical drill confirms this as well. Requirement 4, natural communication, is not met at all by manipulative-mechanical drills; by definition such practice is not an attempt to communicate.

Meaningful and Communicative Drills. Meaningful and communicative drills, activities in which students can tell the truth or role play, have the potential for satisfying all the characteristics listed. They are designed to be understood, may be put at any level, may be progressive, and may involve real communication or something close to it. These types should be the most effective for acquisition. They are also the most difficult to construct.

There are two very practical implications of this discussion. The first is the point that simply being a native speaker of a language is insufficient background for being a teacher of that language. Teacher monologues which are not controlled for syntax and vocabulary are not likely to foster learning in students. "Free conversation" periods where students are told merely to "discuss" or to "use a structure," are likely to be ineffective as well. Free conversation is not an effective technique. Second, it is no easy task to construct interesting, effective, communicative and meaningful drills. As Newport et al's research suggests, the proper intake sequence is not obvious. Also, it is very hard to make up interesting situations at the appropriate level for each class session. For this reason, I generally encourage teachers *not* to feel they have to come up with their own materials each day.

Note also that combining free conversation and mechanical drill "covers," albeit awkwardly, the requirements for acquisition. This corresponds to the old "structure class-conversation class" combination, which does result in some acquisition, but uses an inefficient, painful approach. It is a relatively easy way to teach, but not an easy way to acquire. The use of meaningful and communicative drills is more difficult for the materials designer and teacher, but more comfortable for the student.

One could conceivably argue that *no materials at all* is best. Since we do not know what the optimal teaching sequence is and--even if we did--materials are so hard to create, why not follow Roger Brown's (1977) advice to mothers wanting to know how to teach their children language? "Believe that your child can understand more than he or she can say, and seek, above all, to communicate....There is no set of rules of how to talk to a child that can even approach what you unconsciously know. If you concentrate on communicating, everything else will follow." Does it, therefore, follow that instead of trying to determine the natural syllabus and design materials, that we should substitute the sympathetic native speaker? As we have seen above, there are problems with this approach: native speakers do not, as a rule, use caretaker speech with older acquirers (Wagner-Gough and Hatch, 1975). There is, however, no substitute for the real communicative situation and various methods have been suggested to encourage native speakers to utilize their instinctive abilities to provide intake. See, for example, Terrell (1977) on the "Natural Method," my recent paper on language-learning buttons (Krashen, 1978b), as well as d'Anglejan's recent discussion (forthcoming) of the use of informal language acquisition environments in language teaching.

The Importance of Meaningful Input/Intake: Does Speaking Help?

The major point of this section is the claim that it is *intake* that is fundamental to acquisition. Actual speaking may help the acquisition process, but only indirectly; it may encourage appropriate input.

I will first briefly comment on some first-language research that seems to suggest that acquisition proceeds through conversational interaction, implying that actual speaking is important. I will then mention some interesting research that is quite consistent with *the intake hypothesis*.

Scollon (1973) has presented some interesting evidence that seems to indicate that children acquire syntax via interaction with other speakers, by "active practice." Early child utterances are "vertical"--they are single word utterances that make sense when one considers the entire discourse. Adults react to these single word utterances by asking for a constituent to fill out the child's construction:

child	adult
hiding	
	What's hiding?
balloon	

In this way, the child "learns how to construct"--to make horizontal structures. In later stages, vertical constructions may have horizontal subcomponents:

child	adult
tape corder	
use it, use it	
	Use it for what?
talk	
corder talk	
Brenda talk	

Scollon's claim is that vertical constructions *prepare* horizontal constructions, suggesting that "discourse structure is at the heart of sentence structure from the beginning of its development." A similar phenomenon has been noted for child second language by Hatch (forthcoming).

My position is that the existence of such vertical-horizontal transitions does not demonstrate that speaking is necessary on the part of the child. There is little doubt that speaking is very useful for acquisition, but its main function is that it allows conversation which *encourages intake*. In other words, the apparent movement from vertical to horizontal constructions may be a manifestation and not a cause of language acquisition. Theoretically, nonverbal participation may be a sufficient prod for the caretaker to provide the acquirer with intake. Consider, for example, the following (theoretical) exchange.

child	adult
(cries, points to a balloon)	
	balloon
(more crying, pointing)	
	Baby want balloon? *You want a balloon?*

One can imagine this child encouraging a great deal of contextualized, simple input, with many of the characteristics of intake.

Besides the possibility of this alternative interpretation of Scollon and Hatch, there are several other reasons to consider the intake hypothesis as a serious one. First, as mentioned earlier, there are several studies showing that delaying speech in second-language acquisition instruction, when active listening is provided, causes no delay in attaining proficiency in second-language acquisition and may even be beneficial (for child second language, see Gary, 1975; for adult studies, see Asher, 1965, 1966, 1969; Postovsky, 1977.) Also, there are suggestive informal accounts of language acquisition in other cultures where active listening is stressed. Here is Sorenson's (1967) report on the American Indians in the Vaupés River area: "The Indians do not practice speaking a language they do not know well yet. Instead, they passively learn lists of words, forms, phrases in it and familiarize themselves with the sound of its pronunciation...They may make an occasional attempt to speak a new language in an appropriate situation, but if it does not come easily, they will not force it."

Finally, there is the well-established fact from child language acquisition studies that comprehension precedes production. Production, in fact, need never occur. Lenneberg (1962) describes the case of congenital anarthria in an eight-year-old boy who never spoke, but who could understand spoken English perfectly well. Lenneberg noted that:

> [A] similar phenomenon in more attenuated form is extremely common. Understanding normally precedes speaking by several weeks or months. This discrepancy is regularly increased in literally all types of developmental speech disorders and is best illustrated in children who have structural deformities in the oral cavity or pharynx and who produce unintelligible speech for years--sometimes throughout life--without the slightest impairment of understanding. Congenitally deaf children also learn to comprehend language in the absence of vocal skills...However, there is no clear evidence that speaking is ever present in the absence of understanding.

Children acquiring second languages in informal environments typically exhibit a "silent period" lasting a few months, a period during which acquired competence is built up via active listening until a sufficient "amount" is present for utterance initiation. Hakuta (1974) reports that his subject, Uguisu, a Japanese speaking five-year-old acquiring English as a second language, did not speak any English to any extent until three months after her exposure to English began. Paul, a five-year-old Chinese speaker acquiring English studied by Huang and Hatch (forthcoming), also said little except for routines and imitations for about two months.

Our conclusions regarding the importance of input and the relatively minor direct role played by speaking are entirely consistent with the earlier conclusions on the role of the first language in second-language performance: "too early" speaking may lead to over-reliance on the first language and what appears to be "interference." Allowing the adult a silent period, during which acquired competence is built up via active listening and reading, may be the best means for dealing with first language "interference." Of course, this is a luxury that few second-language acquirers in the real world can afford--performance demands may begin quite early, and we need to provide useful routines and patterns, and even allow the use of the "bizarre mode" (use of the L_1 and the Monitor) so the performer can survive in his environment. This should be done with the recognition that this is pseudo-language, and the classroom can provide meaningful input so that true language acquisition can provide the adult with acquired competence that will eventually form the basis of fluent and comfortable performance.

Is Intake Sufficient for Acquisition?

An implication of this discussion is that if the requirements for intake are met, acquisition will occur. This is not entirely correct. The acquirer must be *open* to the intake, his "affective filter" (Dulay and Burt, 1977) must be down. For this reason, attitudinal variables (see above, and Krashen, in press) are crucially important. The best methodology in the world is wasted when the student is "on the defensive" (Stevick, 1976), when he is not open to the input. The apparent success of certain newer teaching methods stems from the fact that they both provide intake and also contribute toward creating an environment conducive for acquisition. This is one of the main themes of Stevick's *Memory, Meaning, and Method* (1976).

Conscious Learning in the Classroom: Does Learning Become Acquisition?

Conscious learning is quite different from acquisition and may be a totally independent system. Conscious learning is clearly helped by overt teaching, and we might even hypothesize that *output*, not input/intake, helps learning, as spoken or written output provides a domain for error correction. (Whether error correction as currently practiced achieves its goal is questionable; however, see Long, 1977; Fanselow, 1977.)

A major goal of our research is to determine the true contribution of conscious learning, as we have seen above. Whatever the quantity of its contribution to adult second-language performance, the Monitor Model predicts that it is in one domain only, as a conscious Monitor. Conscious learning does not initiate utterances or produce fluency. It also does not contribute directly to acquisition.

This last point deserves some discussion. Most implicit second-language acquisition theories presume that the conscious rule precedes "automatic" control of structure. See Carroll (1966), who discusses the cognitive code method: "Once the student has a proper degree of cognitive control over the structures of a language, facility will develop automatically with the use of the language in meaningful situations." I have discussed this very reasonable assumption in Krashen, 1977b, stating several reasons why it is not necessarily so. We see performers who have "known" certain easy rules for years, but who still make errors. We also see performers who clearly are "Monitor under-users" (Krashen, in press) who control very complex aspects of syntax without ever having "known" a rule. It may, however, "look like" learning precedes acquisition occasionally. This is not so; what is really taking place can be illustrated with a hypothetical example.

Consider the case of two ESL performers living in the United States, M and U. M is a Monitor user, while U is not. They have acquired equal amounts of English and are exposed to identical input/intake. Let us also assume that there does indeed exist an "average" order of acquisition for grammatical items. Figure 1 illustrates M and U's progress along this natural order. At time 1, both have acquired up to item 3. (This is, of course, a vast oversimplification; there is some individual variation in order of acquisition, and it is known that items are not acquired in a rigidly linear order. Also, acquisition is not "all or none" as Brown [1973], Hakuta [1974] and Rosansky [1976] show; acquisition is not sudden, and "acquisition curves" are not even necessarily linear.) Item 28, far down the line, happens to be an item that is easily "learnable" (like the third person singular morpheme on regular verbs) and is typically presented in ESL classes very early. M, being a conscious learner, has no problem gaining an explicit mental representation of 28, and begins to apply his conscious rule at time 1. He is thus able to supply 28 when the conditions for Monitor use are met: time and focus on form, and his performance on 28 is therefore variable. U ignored the formal presentation of 28 in class and does not supply it at all until time 2. At time 2, both M and U acquire item 28, and use it consistently and appropriately in performance from time 2 on. This acquisition was due to the intake both M and U received between times 1 and 2. (Again, I assume sudden and perfect acquisition, and the authors cited above have shown that this does not occur--acquisition curves are gradual and somewhat irregular. I ignore this source of variability in this example.)

Figure 1

M	items to be acquired	U	
	1		
	2		
	3		
----------	----------	----------	time 1
	4		
	.		
	.		
	.		
	i		
	.		
	.		
	28		
----------	----------	----------	time 2
	.		

Looking only at M, it appears to be the case that his conscious control of 28 was responsible for his automatic-like control of 28 after time 2. There is, however, another possibility--M's conscious use of 28 before time 2 may have had nothing to do with his subsequent acquisition of 28. Rather, 28 was acquired by both M and U through understanding intake, where the focus was on meaning and not form. In a trivial sense, M's own use of 28 was intake, especially at the time M was "ready" for 28 (after he acquired 27?) and may have added to the intake from other sources. The model I am proposing predicts, moreover, that U, dealing with the same intake, would acquire 28 at the same time as M (or maybe slightly later--see comments above). In the case of U, no conscious knowledge preceded acquired competence.

In a sense, M was "faking" 28 until his acquisition caught up, or arrived at 28 "naturally"--M was outperforming his acquired competence.

Some performers will not make it to 28 at all; they will "fossilize" (Selinker, 1972) earlier, due to failure to obtain enough intake, or a failure to utilize intake for acquisition due to an overactive affective filter. The conscious rule may in this case be the permanent solution.

Positing a "natural order" and the existence of language acquisition in the adult allows us to explain the failure of conscious rules to always become automatic competence, and also explains cases like the above, where it appears that the conscious rule was responsible for acquisition just because it "came first."

SOME BENEFITS OF CONSCIOUS LEARNING

Conscious learning has at least three real benefits, although they may apply only to certain subgroups of students. First, for the optimal Monitor users, the application of conscious rules to one's output can result in a real increase in accuracy. In the case of "P," discussed in Krashen and Pon (1975) and in Krashen (1978a), conscious learning meant the difference between writing like a native speaker and writing like a non-native speaker. "P" made errors in casual speech, but was able to successfully apply conscious grammatical rules to her written output to such an extent that she was able to produce the illusion of being a native speaker. Of course, individuals vary with respect to this ability, and even in the case of the optimal Monitor user, the actual amount of increase we can expect is modest. Nevertheless, many rules can be taught and, while little increase in communication effectiveness is generally achieved, the resulting impression this correct performance creates can be important. Much correct punctuation (capitalization, placement of parentheses, apostrophes) can easily be taught, as the rules are straight-forward and not always acquired. Others, such as correct use of the comma, may need to be acquired. Spelling can also be learned. An important goal for applied linguistics is to determine which aspects of grammar are most easily teachable and which cause the greatest increase in accuracy--from our experiments and my own experience, I would suggest that such a list would include the third person singular morpheme, count and mass nouns, regular and irregular past tense of verbs. All of these items tend to be acquired late and are relatively easy to conceptualize and learn. Students could be encouraged to correct their written output with such a list in mind. Again, however, we need to guard against over-use, and the hesitant style in speech that comes from overconcern with correctness.

Another important use for conscious learning is to teach *about* language to those students who have an interest in structure for its own sake. Most readers of this paper would probably *want* to study the structure of a language they were acquiring. The goal of an *optional* module in the structure of a target language would be "language appreciation," with the understanding that such knowledge would not necessarily be available for use in actual performance. I would guess that most students would profit from including conscious knowledge of the language in their syllabus of the sort mentioned above: easy rules to be explicitly used for editing in appropriate situations. A small minority would want more information and be interested in a detailed grammatical description of the target language.

A third potential use for conscious learning is to give over-users *some confidence in the creative construction process*. I have had the experience of teaching rules to advanced ESL students, and to have them comment "Oh yes, that's exactly right, that's exactly how it works." Such responses indicated to me that the students had already acquired the structure I was attempting to teach, but had not learned it until my lesson. A good example is a lesson I used to give on the three meanings of the present progressive: "John is playing the violin" is three ways ambiguous. It could mean future ("What is John doing tomorrow?" "He's playing the violin for the LA symphony."); an action that began a short while ago, but will conclude soon ("What's that noise from the other room?" "Oh, John is playing the violin."); or an action that began quite a while ago, may not be going on just now, and will conclude some time in the future ("What is your brother John up to these days?" "He's playing the violin for the LA symphony."). Advanced foreign students studying ESL generally do not consciously know that the progressive can have these three meanings, but many of them have acquired this knowledge and use the progressive appropriately in all these three ways. They are usually quite surprised to know that they have this tacit knowledge of English, and students are often glad to have it pointed out to them. The only benefit I can see that such teaching may give, aside from the "language appreciation" discussed above, is that an occasional over-user may be brought to understand that subconscious language acquisition is indeed a reality, and that he has a great deal of acquired competence that is worthy of his trust.

The Acculturation Model For Second-Language Acquisition

John H. Schumann

INTRODUCTION

This paper is an attempt to formulate a model of second-language acquisition based on the social-psychology of acculturation. The model presented is by no means final and therefore the reader is advised that the final section of the paper, "Problems with this Perspective," is as important as the major part of the text.

In the past several years, researchers in second-language acquisition (SLA) have been attempting to determine what factors are involved in the second-language learning process. Table 1 on the following page attempts to provide an up-to-date taxonomy of the factors which researchers currently believe to be important in the process of becoming bilingual.

The development of such taxonomies is important and must continue, but at the same time it is necessary to attempt to determine which factor or set of factors are more important in that they *cause* second-language acquisition to occur and which factors are less important in that they are intervening variables which simply serve to moderate the effects of the causal variable(s).*

CAUSAL VARIABLES

As an operating strategy I propose that in attempting to identify the causal variable(s) in SLA we do so within the context of natural SLA, i.e. learning language without instruction and in the environment where it is spoken. There are at least two reasons for adopting this strategy. First, unlike other

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** The search for causal variables in second language acquisition was suggested to me by the work of Paulston (1975, 1977) in bilingual education.*

TABLE 1

Taxonomy of Factors Influencing Second-Language Acquisition

Social Factors:	Dominance; Nondominance; Subordination; Assimilation; Acculturation; Preservation; Enclosure; Cohesiveness; Size; Congruence; Attitude; Intended Length of Residence in TL Area.
Affective Factors:	Language Shock; Cultural Shock; Motivation; Ego-permeability.
Personality Factors:	Tolerance for Ambiguity; Sensitivity to Rejection; Introversion/Extroversion; Self-esteem.
Cognitive Factors:	Cognitive Development; Cognitive Processes: imitation, analogy, generalization, rote memorization; Cognitive Style: field dependence, category width, cognitive interference, monitoring.
Biological Factors:	Lateralization; Transfer; Infrasystems.
Aptitude Factors:	Modern Language Aptitude; IQ; Strephosymbolia.
Personal Factors:	Nesting Patterns; Transition Anxiety; Reaction to Teaching Methods; Choice of Learning Strategies.
Input Factors:	Frequency; Salience; Complexity; Type of Interlocutor.
Instructional Factors:	Goals; Teacher; Method; Text; Duration; Intensity.

subjects such as history and mathematics, languages can be and are mastered without study and without instruction. Second, it is probable that in the history of mankind more people have become bilingual without study or instruction than with them. Therefore, it would seem logical to begin the search for the causal variable(s) in SLA by viewing this process in its natural setting.

Acculturation

From the taxonomy in Table 1, I would like to argue that two groups of variables--social factors and affective factors--cluster into a single variable which is the major causal variable in SLA. I propose that we call this variable *acculturation*. By acculturation I mean the social and psychological integration of the learner with the target language (TL) group. I also propose that any learner can be placed on a continuum that ranges from social and psychological distance to social and psychological proximity with speakers of the TL, and that the learner will acquire the second language only to the degree that he acculturates. It is necessary, however, to distinguish between two types of acculturation. In type one acculturation, the learner is socially integrated with the TL group and, as a result, develops sufficient contacts with TL speakers to enable him to acquire the TL. In addition, he is psychologically open to the TL such that input to which he is exposed becomes intake. Type two acculturation has all the characteristics of type one, but in this case the learner regards the TL speakers as a reference group whose life style and values he consciously or unconsciously desires to adopt. Both types of acculturation are sufficient to cause acquisition of the TL, but the distinction is made in order to stress that social and psychological contact with the TL group is the essential component in acculturation (as it relates to SLA) and that adoption of the life style and values of the TL group (characteristics traditionally associated with the notion of acculturation) is not necessary for successful acquisition of the TL.

Now let's examine the social and psychological factors that constitute acculturation.

Social Variables

When we examine social variables (Schumann, 1976a, 1976b, 1978a, 1978b) involved in acculturation and thus SLA, we are concerned with variables which involve the relationship between two social groups who are in a contact situation, but who speak different languages. One group is considered the second-language learning (2LL) group and the other the target language (TL) group. Certain social factors can either promote or inhibit contact between the two groups and thus affect the degree to which the 2LL group acculturates which in turn affects the degree to which that group will acquire the target language.

The first such factor involves *social dominance patterns*. If the 2LL group is politically, culturally, technically or economically superior (dominant) to the TL group then it will tend not to learn the target language. For example, French colonists in Tunisia were potential learners of Arabic. But the French, as a group, because of their political, cultural, technical and economic dominance, were socially distant from the Tunisians and felt very little need to acquire Arabic. If the 2LL group is inferior (subordinate) to the TL group then there will also be social distance between the two groups, and the 2LL group will tend to resist learning the target language. For example, American Indians living in the Southwest have traditionally been subordinate to the dominant Anglo group and have also resisted acculturation and the acquisition of English. This situation is compounded by issues of enclosure, congruence and attitude which will be mentioned below. If the 2LL group and the TL group are roughly equal in terms of political, cultural, technical and economic status, then contact between the two groups is likely to be more extensive and the acquisition of the target language by the 2LL group will be enhanced.

The second social factor affecting second language learning involves three integration strategies: *assimilation*, *preservation* and *adaptation*.* If the 2LL group assimilates then it gives up its own life style and values and adopts those of the target language group. This strategy maximizes contact between the two groups and enhances acquisition of the target language. If the 2LL group chooses preservation as its integration strategy then it maintains its own life style and values and rejects those of the TL group. This situation creates social distance between the two groups and makes it unlikely that the 2LL group will acquire the TL group's language. If the 2LL group chooses adaptation as its integration strategy then it adapts to the life style and values of the TL group, but maintains its own life style and values for intragroup use. This particular integration strategy yields varying degrees of contact between the two groups and thus varying degrees of acquisition of the target language.

Enclosure is the third social factor that affects second language learning. Enclosure refers to the degree to which the 2LL group and the TL group share the same churches, schools, clubs, recreational facilities, crafts, professions and trades. If the two groups share these social constructs then enclosure is said to be low, contact between the two groups is enhanced and acquisition of the target language by the 2LL group is facilitated. However, if the two groups have different churches, schools, clubs, recreational facilities, crafts, professions and trades then enclosure is said to be high, contact between the two groups is limited and opportunities for acquisition of the target language are reduced.

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* *Schumann (1976a, 1976b, 1978a, 1978b) used the term* acculturation *instead of* adaptation. *However, in this paper* adaptation *is used to refer to the integration strategy and* acculturation *is used in the broader sense to refer to social and psychological contact with speakers of the TL.*

Cohesiveness and *size* are related social factors that also affect second-language learning. If the 2LL group is cohesive, then its members will tend to remain separate from the TL group, and if the 2LL group is large, the *intra*group contact will be more frequent than *inter*group contact. Both these situations will reduce the opportunities for acquisition of the target language.

Congruence or similarity between the culture of the TL group and that of the 2LL group also affects the degree of contact between the two groups. If the two cultures are similar then social contact is more likely and second-language learning will be facilitated.

Attitude is another important social factor involved in second-language learning. If the 2LL group and the TL group have positive attitudes toward each other, second-language learning is more likely to occur than if they view each other negatively.

The final social factor to be considered is the 2LL group's *intended length of residence* in the target language area. If the 2LL group intends to remain for a long time in the target language area, it is likely to develop more extensive contacts with the TL group. Therefore, an intended lengthy residence in the target language area would tend to promote second-language learning.

Affective Variables

When discussing social variables we are concerned with language learning by groups of people. However, affective variables (Schumann, 1975, 1976b, 1978a, 1978b) relate to language learning by individuals. An individual may learn under social conditions which are not favorable for SLA and may not learn under social conditions which appear to be favorable. The psychological variables influencing acculturation and hence SLA are affective in nature and include language shock, cultural shock, motivation and ego permeability.

Language Shock. In discussing what can be called language shock, Stengal (1939) points out that when learners attempt to speak a second language they often fear that they will appear comic. He compares the use of a second language with wearing fancy clothes. The adult learner may want to wear his fancy clothes, but he also fears criticism and ridicule. The child, however, sees language as a method of play and finds communication a source of pleasure. Thus, he doesn't fear his fancy clothes; he enjoys wearing them. Stengal states, "the adult will learn the new language the more easily, the more of these infantile characteristics he has preserved." He also points out that adults speaking a second language are often haunted by doubts as to whether their words actually reflect their ideas. Children, he says, are less worried about this. The child is willing to use a word incorrectly and to form new words if necessary. Finally, learners often get a good deal of narcissistic gratification from their use of their native language, and in many cases, they use language to attract attention and praise. When speaking a second language in which they are much less proficient, they lose an important source of narcissistic gratification.

Cultural Shock. Cultural shock can be defined as anxiety resulting from the disorientation encountered upon entering a new culture. When moving into a new culture, the learner finds himself in a dependent state. The coping and problem-solving mechanisms that he has at his disposal often do not work. As a result, activities which were routine in his native country require a great deal of energy in the new environment. This situation can cause disorientation, stress, anxiety and fear. The resulting mental state can produce a powerful syndrome of rejection which diverts energy and attention from second-language learning. The learner, in attempting to find a cause for his disorientation, may reject himself, his own culture, the organization for which he is working and the people of the host country. Under such conditions the learner is unlikely to make the effort necessary to become bilingual.

Motivation. Motivation, the third affective factor, involves the learner's reasons for attempting to acquire the second language. Researchers (Gardner and Lambert, 1972) have identified two motivational orientations for second-language learning--an *integrative* motivation and an *instrumental* motivation. An integratively-oriented learner wants to learn the second language in order to meet with, talk to, find out about and, perhaps, become like speakers of the target language whom he both values and admires. An instrumentally-oriented learner is one who has little interest in the people who speak the target language, but wants to learn the language for more utilitarian reasons such as getting ahead in his occupation or gaining recognition from his own membership group. It has generally been thought that integrative motivation is the more powerful of the two because it implies a desire to integrate with speakers of the target language. A learner with an instrumental motivation would be expected to integrate, and hence acquire the second language, only to the point where his instrumental goals were satisfied. If the learner merely wanted to be able to buy food and take public transportation, he could achieve these goals with a very low level of proficiency in the second language. If the learner had to use the target language in his professional life then his level of learning would be much higher.

Recent research, however, seems to indicate that the motivational orientation that is associated with proficiency in the second language seems to vary according to setting. An integrative motivation appears to be more effective in settings where it is neither necessary nor an accepted fact of life that the second language be acquired. Such conditions obtain in the United States with regard to learning languages such as French, German or Italian. On the other hand, in settings such as Iran and Saudi Arabia there may be no integrative motivation to acquire English, but a great deal of instrumental motivation in order to deal with English speaking technical advisors, educators and businessmen. Oller, Baca and Vigil (1977) have even found that with colonized populations such as Mexican-Americans in the Southwest, proficiency in the second language (in this case English) is associated with an anti-integrative motivation. So, while instrumental and integrative motivations are useful ways to think about success in second-language learning, they are complex constructs that interact both with the social variables discussed earlier and the other variables listed in Table 1.

Ego-Permeability. Guiora (1972), in attempting to explain the ability of some people to acquire native-like pronunciation in a second language, developed the notion of "language ego." He sees language ego as parallel to the Freudian construct, body ego. In the course of general ego development the child acquires body ego by which he becomes aware of the limits of his physical being and learns to distinguish himself from the object world around him. In a similar fashion, in the course of general ego development, the child acquires a sense of the boundaries of his language. The sounds, words, syntax and morphology of his language become objectified and develop firm outlines and boundaries. In the early stages of development, language ego boundaries are permeable, but later they become fixed and rigid.

Guiora, Beit-Hallahmi, Brannon, Dull and Scovel (1972) equated rigidity of ego boundaries with heightened levels of inhibition. They reasoned that if inhibition level could be lowered, ego rigidity would be reduced and ego-permeability would be enhanced. To test this idea, they conducted an experiment in which they gave subjects varying amounts of alcohol (0, 1, 1.5, 2 or 3 ounces of 90-proof liquor) and then tested their pronunciation in a second language. It was found that with the ingestion of one to one-and-a-half ounces of alcohol, pronunciation was better than in either the no alcohol or the two-or three-ounce conditions. This experiment suggests that ego-permeability is inducible and that perhaps the successful adult second-language learner is an individual who has access to more child-like ego states in which greater ego-permeability exists.

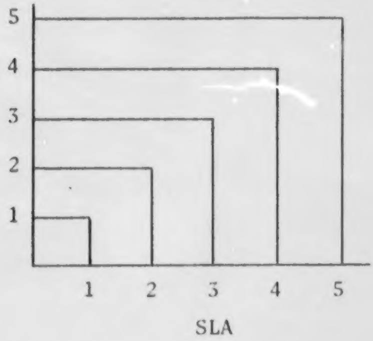
In a related experiment, Schumann, Holroyd, Campbell and Ward (1978) attempted to use hypnotism to improve pronunciation in a second language. They found evidence that the pronunciation of subjects who were deeply hypnotised improved to a greater degree than that of subjects who were less deeply hypnotised. If hypnotism is viewed as a disinhibitor, the observed improvement in pronunciation may have resulted from heightened ego-permeability fostered by lowered inhibitions. From this point of view, both alcohol and hypnotism functioned in the same way in promoting more authentic pronunciation of a second language.*

In sum, if language shock and cultural shock are not overcome and if the learner does not have sufficient and appropriate motivation and ego-permeability, then he will not fully acculturate and hence will not acquire the second language fully.

SLA AND ACCULTURATION

This discussion of social and affective factors leads to the major hypothesis of this paper which is that SLA is just one aspect of acculturation and the degree to which a learner acculturates to the TL group will control the degree to which he acquires the second language. An idealized schema of this relationship is presented in Figure 1.

FIGURE 1



This Figure indicates that for each degree of acculturation there is an equal degree of SLA. The real situation is certainly not so neat; there is probably no one-to-one relationship between acculturation and SLA. Nevertheless, evidence presented by Schumann (1975, 1976b, 1978a, 1978b), Stauble (1978) and the Heidelberg Project (1976) argues for a causal link between acculturation and SLA.

Schumann (1976b, 1978a, 1978b) compared the degree of SLA among six learners (two children, two adolescents and two adults) and found that the subject who acquired the least amount of English was the one who was the most socially and psychologically distant from the TL group. This learner was a 33-year-old Costa

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* *Another possible interpretation of this experiment is that the pronunciation improvement seen in the deeply hypnotised subjects could be the result of regression to the mean.*

Rican named Alberto who could be regarded as belonging to a social group designated as lower-class Latin American worker immigrants. To account for his lack of acculturation, Schumann compared him to four of the other subjects who were classified as children of upper-middle-class Latin American professional immigrants.

Latin American worker immigrants are subordinate in relation to Americans since they represent an unskilled labor group whose model socio-economic status is lower than that of Americans in general. This view is probably shared by both the worker immigrants and the Americans. The worker immigrants probably fall somewhere between preservation and adaptation with regard to their desired integration into American society. In terms of enclosure the Latin American workers have access to American institutions, but generally live in immigrant neighborhoods where they share schools, churches and associations with other immigrants having the same socio-economic status and usually having the same language and culture. This enclosure by neighborhood fosters cohesiveness, particularly in Alberto's case where Costa Rican immigrants are a small minority within a Portuguese minority area. The culture of the Latin American worker immigrants is relatively congruent to that of the Americans (both being Western and Christian), but since the Latin American workers may represent the "culture of poverty" more than does the model American culture, there may also be an element of incongruence between the two cultures. The attitudes of the two groups toward each other would have to be measured before accurate judgments could be made. It is also difficult to assess the intended length of stay in the United States by Latin American workers.

Upper-middle-class Latin American professional immigrants are probably viewed by Americans and also view themselves as nondominant in relation to the English speaking TL group because their educational background and socio-economic status more closely match that of Americans in general. The Latin American professionals are solidly adaptive in their integration pattern. They have to be able to demonstrate culturally appropriate behavior in their relationships with American colleagues and therefore must adapt to American life styles and values. But since their length of residence in the United States is often confined to a period of postgraduate education, they generally do not choose to assimilate. The professionals are generally integrated into the university and professional communities and do not live in immigrant neighborhoods. Therefore, their enclosure is low and they are less cohesive than the worker immigrant. The size of the professional group is likely to be smaller than that of workers, and the congruity of their cultures with that of the United States in general is relatively high. Once again attitudinal orientations would have to be empirically assessed in order to be correctly classified.

When both profiles are considered we find that the Latin American worker immigrant group is at a considerably greater social distance from Americans than are the professionals. Hence, we can say that Alberto was socially distant from Americans.

In order to get some assessment of Alberto's psychological distance from English speakers, at the end of the study he was asked to fill out a short questionnaire which elicited information concerning his attitude and motivation. In terms of this questionnaire, he seemed to have a positive attitude and good motivation, and hence little psychological distance. However, there is some question as to whether he was entirely candid in his answers. Alberto tended not to like to displease and therefore his answers may reflect what he thought the experimenter wanted to hear.

There are several aspects of Alberto's life style that appear to contradict the positive attitude and motivation expressed in his questionnaire. He made very little effort to get to know English speaking people. In Cambridge he stuck quite close to a small group of Spanish speaking friends. He did not own a television and expressed disinterest in it because he could not understand English. On the other hand, he purchased an expensive stereo set and tape deck on which he played mostly Spanish music. Also, he chose to work at night (as well as in the day) rather than attend English classes which were available in Cambridge.

The other subjects were not given the attitude and motivation questionnaire, but in general they seemed to be psychologically much closer to Americans. All their children attended American schools and had American friends. The second adult baby-sat for American children, studied English on her own and tried to get to know and speak with Americans.

Since performance on a Piagetian test of adaptive intelligence (Feldman et al, 1974) indicated that Alberto had no gross cognitive deficits that would have prevented him from acquiring English more fully, and since there is no substantially clear age-related biological or neurological explanation for his low level of development in English, Alberto's lack of acculturation toward the TL group stands as the best argument for his minimal acquisition of English.

Stauble (1978) showed how social distance, but more especially psychological distance, accounted for the degree of acculturation and hence the degree of development of negation in three second-language learners. First she made a detailed analysis of the acquisition of English negation by two second-language learners who acculturated well and thus acquired English negation virtually completely. The analysis delineated the steps a Spanish speaker (all five learners were native Spanish speakers) goes through in acquiring English negation.

Next Stauble gathered English speech samples from three Spanish speakers who had been living in the United States for over 10 years and who had achieved varying levels of proficiency in English. Because of their particular life styles and their lengthy residence in this country, it was judged that their language acquisition had either stopped or had slowed down to such an extent that their interlanguages could be considered fossilized. Stauble analyzed these learners' English negation and then attempted to account for the learners' varying degrees of development by administering a questionnaire which was designed to assess their degree of acculturation by eliciting information about their life styles and their attitudes toward life in the United States.

The questionnaire revealed that Xavier had the greatest amount of psychological distance (62.5%) and the least amount of social distance (12.5%). María and Paz had the same amount of psychological distance (21%), but differed by a little more than 10 percentage points in terms of social distance (56% and 67%, respectively). The fact that Xavier had evidenced very little development in the negative and at the same time had the greatest amount of psychological distance and least social distance led Stauble to suggest that psychological distance may be more important in acculturation than social distance.

Paz exceeded María in negation development even though her social distance was greater than María's and their psychological distances were equal. This result led Stauble to speculate that the two subjects may have differed in the nature of their psychological distance profiles. An examination of the questionnaire data revealed that, although these two subjects had equal total psychological distance scores, in the area of motivation, Paz scored higher than María. Thus, Stauble suggested that in the acculturation there may be a hierarchy in which psychological distance is more important than social distance and motivation is the most important aspect of psychological distance. Stauble cautions, however, that the questionnaire used in her study was a pilot instrument, the validity and reliability of which have not been tested. Therefore, she warns that the results should be considered speculative. With this warning in mind, we can conclude that her findings are at least consistent with the hypothesis that acculturation controls second-language development.

The Heidelberg Research Project (1976) examined the acquisition of German by 48 immigrant workers. Half of the subjects were Italian and half were Spanish. The researchers developed an index of syntactic development and then related the learners' scores on that index to several social factors: leisure contact with Germans, age upon entering Germany, contact with Germans at work, length of education, sex and mother tongue (Spanish or Italian). The following correlations were observed:* leisure contact with Germans: .64; age upon entering Germany: -.57; contact with Germans at work: .53; length of education: .33; mother tongue (Spanish or Italian): .13; sex: .12. In performing the analysis, the researchers separated the 48 subjects into three groups (16 each) according to their degree of syntactic development. Group A was the lowest level of syntactic development, Group B was the middle level and Group C was the highest level.

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* *The researchers do not provide information concerning the statistical significance of these correlations. Because of the preliminary nature of their work they prefer to describe basic generalities through descriptive statistics rather than inferential statistics (Heidelberg Project, 1976).*

To see how the above correlations relate to the social distance aspect of acculturation it will be useful to examine each social variable in detail.

Leisure Contact with Germans. None of the subjects in the lowest syntactic group had a high amount of leisure contact with Germans. Of those workers who had the highest degree of syntactic development, six had low leisure contact with Germans, five had medium contact and five had high contact. It is interesting to note that the workers with the highest amount of contact were persons who lived with German partners. This situation seems to guarantee a high level of learning because it results not only in extensive interaction with the German roommate, but also leads to considerable contact with other Germans. In addition, the researchers speculate that having a German partner may increase the prestige of the foreigner, thus enhancing his opportunities to gain access to other Germans. One of the five "high contact" subjects was married to a German and lived with his in-laws. This man had almost total integration with the community; he belonged to card clubs, played soccer and sat with the "regulars" at the neighborhood bar. With the other four learners the degree of integration was not as complete, but it was similar in nature.

The speakers in the "middle contact" group associated with German neighbors and mixed with Germans in bars. Of the 16 people in this group only four had German friends. In relation to the issue of age upon arrival in Germany, it is interesting to note that these four came to Germany before the age of 22.

The subjects in the "low contact" group only exchanged greetings with neighbors and had brief conversations with Germans in shops. The people in this group lived in the dormitories which factories maintain for immigrant workers. There the isolation is extreme.

Age upon Entering Germany. This variable had an inverse relation with the language acquisition, i.e. with increasing age the index of syntax development was lower. The 10 speakers with the highest syntactic level entered Germany about the age of 20. All the worker immigrants who arrived after 40 years-of-age were in the lowest syntactic group. Those who arrived between the ages of 25 and 35 were generally in the middle syntactic group.

The researchers caution that one must not hasten to ascribe a neurological or cognitive cause to these age-related results. They believe that social factors may be responsible, and in this regard they point out that the correlation between age at entry and the two contact variables (leisure contact and work contact) is .32 and that none of the subjects who entered at an early age had little contact with Germans.

There was, however, one bit of evidence that the ability to learn a second language decreases with age. One subject was 53 upon entering Germany. Although his situation would seem to give him contact with Germans, his syntax level placed him in the lowest group. Subjects with a similar social profile and a younger entry age did much better on the syntax scale.

Contact with Germans at Work. This was the third most important factor in the acquisition of German by immigrant workers. The researchers noted that learners whose work required communication with co-workers did better in German than workers who provided services (hairdresser, kitchen help, etc.). Also learners who worked in an environment which was noisy or which constrained movement were at a disadvantage. In addition, if the worker's position demanded that he control and understand the work process as a whole, he tended to have a better grasp of German.

It also appeared that language learning was enhanced when the particular work force consisted of Germans with immigrant workers of many different nationalities. Where the immigrant workers were largely of the same nationality they tended to communicate in their own language. The number of Germans in the work force was also an important factor.

An examination of both of the contact variables together reveals that among the best speakers, those who had little leisure contact with Germans all had considerable work contact.

Length of Education. In general, the syntax index increases with level of education the worker received in his native country. Indeed all speakers with less than five years of formal education were in the lowest syntax group. Length of education correlated .33 with the syntax index, but when that variable was further refined to reflect amount of vocational education acquired in the worker's home country, the correlation increased to .42. Almost two-thirds of the subjects were unskilled or semi-skilled workers. Both these groups of workers scored below the average syntax index. However, the skilled workers (journeymen) were at a much higher level. Of the 11 journeymen workers, nine were at the highest syntax level. One could hypothesize that these workers by virtue of their education and experience were non-dominant or approximately equal to their German counterparts in terms of education, technical skill and economic status and, therefore, integrated with them relatively easily.

Length of Stay. The researchers had initially predicted that this would be a major factor in the acquisition of German. However, there turned out to be no strong relationship between the two variables. It appears that in the first two or three years all the subjects are acquiring syntax, but that after this initial phase, the development of syntax is determined by the other social variables discussed above.

Using these four social variables plus two additional variables (sex and native language), the researchers developed an overall social index. This measure correlated with the syntax index at .82 which was higher than any individual social variable. Thus, the Heidelberg Project offers substantial evidence that acculturation may be the major causal variable in SLA.

Ancillary evidence for the importance of acculturation derives from the phenomena of pidginization and decreolization. Pidginization occurs when speakers of different languages come into limited contact and an auxiliary vehicle of communication develops to facilitate interaction between them. There are two types of pidginization: secondary hybridization and tertiary hybridization (Whinnom, 1971). Secondary hybridization is represented by the reduced and simplified speech of second-language learners which develops initially due to cognitive constraints, but which persists if the learner(s) is socially and/or psychologically distant from the target language group. Tertiary hybridization is really secondary hybridization with two added conditions: (a) the target language is no longer available as a norm to which speakers assimilate and (b) the hybrid becomes a vehicle of communication among speakers with different native languages.

Secondary hybridization produces a pidginized interlanguage which is characterized by simplifications such as the loss of inflectional morphology, and the elimination of certain grammatical transformations. The pidginization resulting from tertiary hybridization is characterized by similar simplifications, but due to the facts that the pidgin is used as a vehicle of communication among speakers of different native languages and that the target language is not available as a model of approximation, the interlanguage in this case undergoes more independent development and is characterized, not only by simplification, but also by admixture of the several languages involved and by linguistic innovations which might best be described as language "creation."

Both secondary and tertiary hybridization constitute pidginization, but it is generally agreed that only tertiary hybridization results in the development of a true pidgin language. In addition, the pidginization that occurs in certain SLA situations represents only secondary hybridization. However, what is important for our discussion here is that both forms of hybridization are the consequence of second-language development under conditions of limited acculturation. In the study by Schumann (1976b, 1978a, 1978b) referred to above, Alberto's lack of acculturation to the English speaking target language group resulted in secondary hybridization and thus a pidginized form of English in which the uniform negative "no" was used for most negative utterances, questions were uninverted, auxiliaries were lacking, possessives were uninflected, verbs were not marked for tense and subject pronouns were often deleted. No claim is made that Alberto's interlanguage constituted a pidgin, but only that lack of acculturation caused it to be pidginized.

When a pidgin becomes the native language of a group of speakers it is called a creole. In the process of creolization the former pidgin complicates and expands so that it can function not just as an auxiliary vehicle of communication, but as genuine native language of a particular group. However, the complication and expansion that takes place in creolization is not goal directed. In other words, the linguistic features that a creole develops during the process of complication and expansion are not derived from any target language which serves as a model of approximation. In essence, the creole creates itself, acquiring features through processes of natural language development. Therefore, since creolization is language creation and not language acculturation it does not fit into the acculturation model of SLA. Decreolization, on the other hand, is a form of language acculturation and does fit the model.

Decreolization is a process in which social stratification breaks down and the creole speakers gain varying degrees of contact with the group which speaks the base language of the creole. An example would be the speakers of Guyanese Creole coming into varying degrees of contact with speakers of standard English. When this happens a series of lects ranging from the Creole to the standard language develops. The lect closest to the creole is called the *basilect*, the one closest to the standard language is called *acrolect* and those in the middle are referred to as the *mesolect*. The degree to which the individual has contact with the standard speakers will determine which lect he speaks. Hence, varying degrees of acculturation to the standard language group produces the continuum of lects.

Bickerton (1975) suggested that the developing stages of SLA from native language (NL) through the TL may parallel the decreolization continuum. Movement along the continuum in both cases is motivated by the degree of contact the learner has with the TL group. Stauble (1978) tested this hypothesis in the study discussed earlier. It will be recalled that she made a detailed analysis of the acquisition of English negation by two second-language learners who acculturated well and thus acquired English negation virtually completely. She then compared that analysis with Bickerton's description of the decreolization of Guyanese negation. She found that the development of negation in both cases was characterized by two processes: replacement and restructuring. In replacement, nonstandard morphemes are replaced by morphemes which on the surface resemble those of standard English. For example, in the decreolization of Guyanese, the basilect negator *na* is replaced in the mesolect by various negators--*doon(t)=don't* *dozn(t)=doesn't* *di(d)n(t)=didn't* --which are modeled on the standard forms. However, these negators are monomorphemic forms that simply negate; they are not carriers of tense.

Basilect:
Yu *na taak* tu di man nek de?
(*Didn't* you *talk* to the man the next day?)

Mesolect:
We *don't* understand it
(We *didn't* understand it)
But you *didn't* had it
(But you *didn't* have it)

Among the Spanish speakers acquiring English as a second language, the same phenomenon is evident. The negator *no* which is used in the early stages gradually is replaced by *don't* in the intermediate stages: *No saw* him = I didn't see him; I *don't saw* him = I *didn't see* him. Here *don't* is an unanalyzed form; it does not consist of *do* and negator and is not a carrier of tense.

In the process of restructuring, the forms which had been incorporated with only surface similarities to the standard get analyzed into the grammatical categories of the model language. In negation, this process is realized when a monomorphemic negator such as *don't* becomes a carrier of tense as well as negation such that *didn't* is used only for past reference and *don't* and *doesn't* are restricted to nonpast reference. In the decreolization of Guyanese this occurs in the development from mesolect to acrolect, and in the acquisition of English by Spanish speakers it occurs in the development from the intermediate to later stages of learning.

The processes of replacement and restructuring in the acquisition of English negation by Spanish speakers produces a continuum of developmental stages that parallels quite closely the Guyanese decreolization continuum. Table 2 on the following page presents Stauble's analysis of the SLA continuum and labels the stages: *basilang*, *mesolang* and *acrolang*.

After establishing this continuum Stauble, as was discussed earlier, gathered English speech samples from three Spanish speakers whose interlanguages had fossilized. She found that one subject had lower mesolang negation, another was at the mid-mesolang period and the third had fossilized at the upper-mesolang stage. Then, to account for the learner's varying degrees of development, Stauble administered a questionnaire which was designed to assess their degree of acculturation. She concluded that there was a definite relationship between the subject's degree of acculturation and the degree of linguistic development they exhibited in English negation.

Stauble's work suggests that the analogy between decreolization and SLA is valid since in both cases linguistic development is accomplished through the process of replacement and restructuring both of which are in turn fostered by acculturation to the TL group. This analogy is depicted in Figure 2.

FIGURE 2

Decreolization Continuum	Basilect	Mesolect	Acrolect
SLA Continuum	Basilang	Mesolang	Acrolang

However, there is one problem with this formulation: the basilect and the basilang are not really analogous because basilect is a native language and the basilang is not. The basilect speaker acquires this lect by being born into a community for

TABLE 2

Stauble's Analysis of the Sequence of Acquisition of English Negation by Native Speakers of Spanish

1. *Basilang* Preverbal negation rule	a. *no* + verb constructions: *No saw him* b. *no* + phrase constructions: *No in Colombia* c. Some *don't* + verb constructions: *Don't like*
2. *Lower Mesolang* Preverbal and post-auxiliary negation rules	a. Dominant use of unanalyzed *don't* + verb constructions: *I don't saw him* (= didn't) b. Some *cop/aux + negator* constructions: *The dog can't bark* c. *no/not + phrase* constructions in variation: *No this week, Not today*
3. *Mid-Mesolang* Preverbal and post-auxiliary negation rules	a. Decline of *no + verb* constructions b. Expansion of *cop/aux + negator* constructions: *I'm not old enough, I will don't see you tomorrow* (= will not) c. Increase of *not + phrase* constructions over *no + phrase* constructions
4. *Upper Mesolang* Loss of preverbal negation and establishment of English post-auxiliary negation rule	a. Innovation of past/present distinction among negative forms (i.e., the use of past tense *cop*, *aux* and *do*); *He wasn't talking to the teacher, I didn't went to Costa Rica* b. Elimination of nonstandard negative forms (i.e., *no* + phrases and preverbal negation) c. Restructuring of analyzed *don't* (i.e., the appearance of *didn't*, *doesn't*, *do not*, etc.) such that *do* is used as carrier of both negation and tense.
5. *Acrolang* Final elimination of all nonstandard interlingual forms and the establishment of standard English negation.	

whom the lect is the native language. The basilang speaker, on the other hand, acquires this lect through a process of reduction and simplification of a second language to which he is exposed. Thus the basilang is more analogous to pidginization than it is to decreolization. However, if the basilang speaker acculturates and establishes increasing degrees of social and psychological contact with the TL group, then his pidginized basilang will complicate and expand to eventual conformity with the TL. Thus it is at the mesolang and acrolang stages that the SLA continuum parallels decreolization. The foregoing discussion on the relationship of pidginization, creolization and decreolization to SLA is summarized in Figure 3 on page 45. Here we see that early pidginization (secondary hybridization) is parallel to the basilang of SLA. Late pidginization (tertiary hybridization), creolization and the basilang phase of decreolization do not parallel SLA. And finally the mesolect and acrolect phases of decreolization parallel the mesolang and acrolang of SLA. In addition, both early pidginization and the basilang result from a language contact situation in which there is minimal acculturation. Decreolization, from mesolect through acrolect, and SLA, from mesolang through acrolang, result from language contact situations where there is progressive acculturation leading to ultimate conformity with the TL norm. All this motivates a model of SLA in which degree of acculturation (social and psychological contact) with the TL group is a causal variable in the language acquisition process.

ACCULTURATION VS. INSTRUCTION

A corollary to the hypothesis that acculturation (social and affective factors) is the major causal variable in SLA is that all the other factors listed in Table 1 are less important intervening variables or simply minor variables. However, Figure 4 depicts a situation which appears to contradict this

FIGURE 4

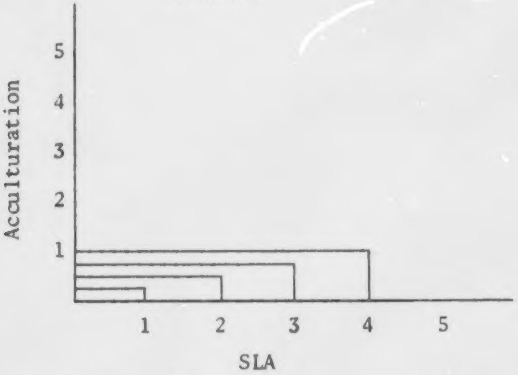
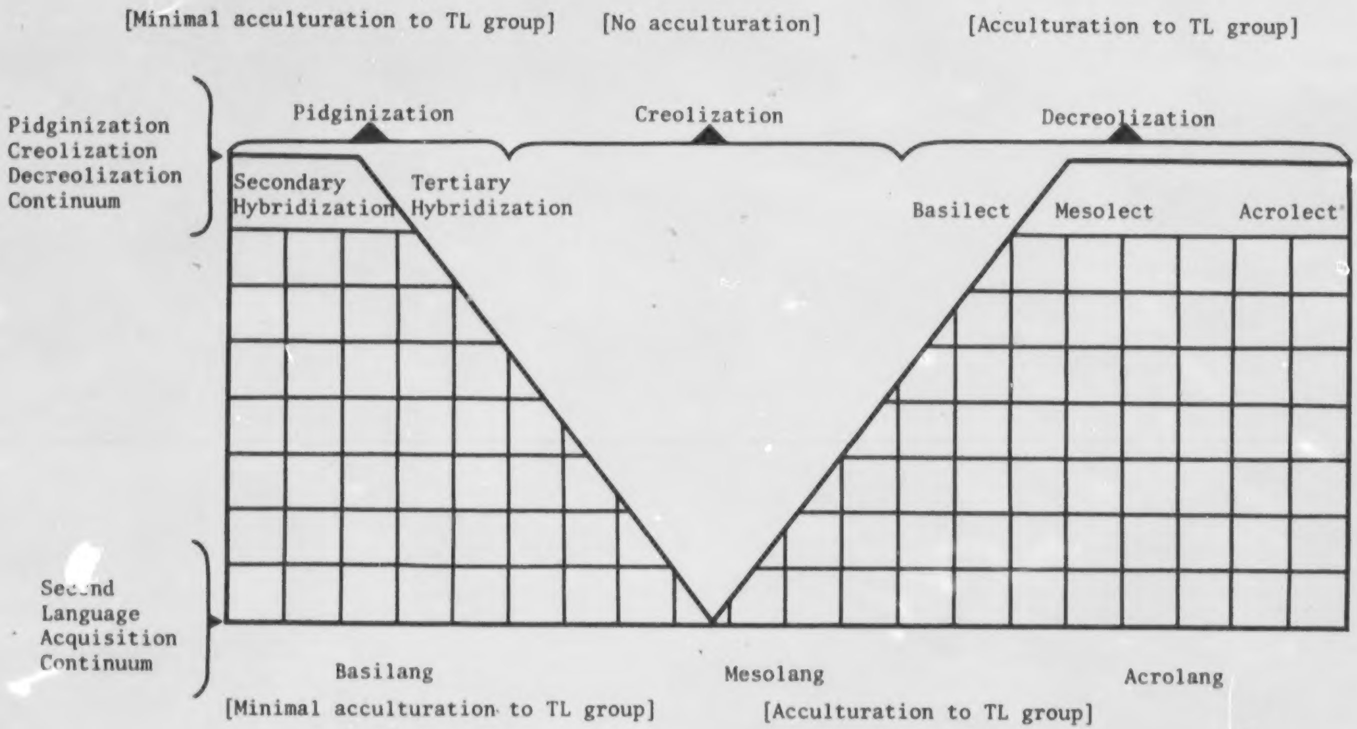


FIGURE 3


[Minimal acculturation to TL group]
[No acculturation]
[Acculturation to TL group]
Pidginization
Creolization
Decreolization
Continuum
Pidginization
Creolization
Decreolization
Secondary
Hybridization
Tertiary
Hybridization
Basilect
Mesolect
Acrolect
Second
Language
Acquisition
Continuum
Basilang
Mesolang
Acrolang
[Minimal acculturation to TL group]
[Acculturation to TL group]

assertion. Here we see minimal acculturation, but considerable language acquisition. This result can be achieved through instruction (which I consider to be a minor intervening variable), but only instruction of a very special kind.

Results of the sort depicted in Figure 4 have been achieved to some extent by the Foreign Service Institute (FSI) and the Army language schools. But in both these situations radical steps have been taken to pump up the instructional variable to make it a causal variable. This is accomplished by selecting only candidates with high language learning aptitude and providing them with intensive instruction (often five hours per day or more) over an extended period of time (often a year or more). In addition, these instructional programs have very small classes (five or six students), well trained teachers, specially prepared materials and a washout system whereby learners who fail to keep pace are dropped from the program. Often the career advancement of the participants in these programs depends on how well they acquire the second language; thus, the learners generally have high instrumental motivation.

It is only by taking such radical steps that SLA, which by its nature is a by-product of acculturation, can occur with any guarantee of success in an instructional setting. But even with all these special instructional considerations, the programs described above still do not ignore acculturation. Foreign service officers frequently receive some portion of their training in a country where the language they are studying is spoken, and in the Army language programs, learners are required to interact during meals and recreation periods with native speakers of the target language.

If we examine the instructional factors in Table 1 (teacher, method, text, intensity and duration) we see that in foreign language programs in our schools, the only variables that can be manipulated are teacher, method and text. Intensity is limited by the fact that our students must also study other subjects and by the fact that institutional regulations allow only a certain number of contact hours per credit unit. Except where bound by an institutional requirement (usually not more than two years), duration is entirely in the hands of the learner; he can drop out at anytime, and if he expects to learn the language well, he must be prepared to continue with instruction for an extremely lengthy period (often six or more years). Further, educational institutions have much more liberal washout criteria. In schools, a student can continue foreign language study with C's and D's (where little learning is probably taking place), whereas the FSI and Army language programs can, if they wish, drop learners anytime they fall below the A level. In addition, the FSI and Army programs are free to manipulate the aptitude variable whereas schools generally cannot select only language students with high language learning ability.

Thus as mentioned above, educational institutions are really only free to manipulate teacher, method and text variables.

I believe that these variables are so weak in terms of the total language learning situation that no matter how much we attempt to change them we will never achieve much more success than we are achieving now.

Many scholars have noted how the history of language teaching methods has been characterized by the pendulum effect. At one period speaking is stressed, at another period reading and grammatical analysis are stressed and in the third period speaking is again stressed. No cumulative progress seems to be made. The field simply bounces back and forth. It is my opinion that whether we use the audio-lingual method, the cognitive code method, the Gattegno method, the Asher method, the Curran method, the suggestopedic method or an individualized method, we will achieve equally unsatisfactory results in the long run because language learning is not a matter of method, but is a matter of acculturation, and where acculturation cannot take place and where we do not have the freedom to manipulate other aspects of the instructional component such as is done by the FSI and the U.S. Army, we cannot expect to achieve much more than we are now in our foreign language programs.

For some people this is a very pessimistic conclusion, but for the applied linguist interested in SLA research it needn't be. SLA research will have made a major contribution if it eventually leads to clear understanding of what it takes to learn a second language, even if it can't come up with methodology which will produce bilinguals quickly and efficiently.

PROBLEMS WITH THIS PERSPECTIVE

1. This model accounts for second-language acquisition under conditions of immigration or an extended sojourn in the TL area. Thus, it accounts for SLA by American Peace Corps volunteers overseas and immigrants to the United States. It will account for the acquisition of French and/or Arabic by sojourners in Tunisia, but will not account for the acquisition of French by Tunisians. It will account for the acquisition of Hebrew by immigrants to Israel, but it will not account for the acquisition of English by Israelis in Israel. It accounts for the acquisition of Swedish by a German sojourner in Sweden and the acquisition of German by a Swedish sojourner in Germany, but it does not account for the SLA by elite Europeans acquiring English in their respective countries.

In each of the cases mentioned above where the acculturation model does not apply, another process may be at work. Tunisians acquire French as part of becoming educated Tunisians. Israelis living in Israel acquire English to be marked as members of an elite class of Israeli professionals who are capable of communicating with English speaking professionals outside of Israel. The same motivation exists for European elite professionals who acquire English in their own countries. The process which may account for SLA in these cases and which contrasts with acculturation might be designated as enculturation--the process by which an individual assimilates to his own culture or to some segment of it. Future papers will explore the nature of this SLA mode.

2. Another question that would probably be raised about the point of view taken in this paper is whether or not acculturation is, in fact, the causal variable in SLA. Researchers who take a more cognitive approach to language acquisition might argue that the causal variables are the cognitive processes and strategies that the learner uses to create input and to process that input so that it becomes intake. This argument seems more reasonable from the point of view of explaining good or successful language acquisition. But it is much less satisfactory in accounting for unsuccessful learning. If there are five cognitive processes and five strategies that are used in successful SLA, what good does it do to point out that a learner was unsuccessful because he only used two of them? The question would immediately become why did he use only two. This query would send us in search of other causes (social factors, affective factors, biological factors, aptitude factors, etc.)

Perhaps then we should think in terms of chains of causality where the remote cause would be seen as social and psychological integration with the TL group, the proximate cause would be acculturation and immediate cause would be the cognitive processes and strategies the learner employs in dealing with the input.

Another approach, suggested by Joan Rubin (personal communication), would be to distinguish between preconditions and causes. From her point of view, acculturation would be seen as a precondition and the cognitive operations referred to above would be considered causes. However the ultimate solution is formulated, it is important that the causal role of acculturation be recognized.

3. The model proposed above argues for acculturation and against instruction. It can also be seen to argue indirectly against aptitude because that factor is more associated with rate of acquisition in an instructional setting than with degree of acquisition in the environment where the TL is spoken. But how does the model handle personality, cognitive style, biological and personal factors? At this point there has been too little research (or even speculation) on the relationship of these factors to SLA to build an argument either for or against them as causal variables in the language learning process. My personal feeling is that personality and cognitive style will interact with acculturation, but will not dominate it. Biological factors will only become meaningfully causal if it is found that certain kinds of neurological development cause language learning mechanisms to atrophy and others do not. Current research (Krashen, 1973; Lamendella, 1977; Walsh and Diller, 1977; Scovel, 1977)

does not seem to be leading in that direction. Personal factors are a conglomerate of variables, many of which may overlap with the social and affective factors involved in acculturation. In addition, personal factors may also be related to personality and cognitive style variables in ways that are not yet evident. Therefore, it would be premature to argue for or against their causal role in SLA.

4. It might also be objected that students in the immersion programs in Canada and Culver City are acquiring second languages without acculturation. In general, in these programs Anglophone children pursue a substantial portion of the school curriculum in the second languaage without significant contact with speakers of the TL. However, because of the enormous parental support which generated and which continues to maintain these programs and because of the urgency that exists to acquire French in Canada, I would also consider second-language acquisition in these immersion contexts to be a product of *enculturation*. In fact, reports emerging from the immersion programs indicate that there may be a level at which students cannot develop further without contact with speakers of the TL (Harley and Swain, 1978). Thus, acculturation may be necessary to complete the learning process begun in the immersion programs.

5. The following hypothetical anecdote might be offered as evidence against the acculturation model: "In 1959 I met a fourth-year student at the University of Isfahan who had had virtually no contact with native English speakers, but who spoke English extremely well." I would argue that this case could be explained by two factors: (a) duration of instruction and (b) aptitude. I suspect that if we dug a little deeper we would find that this student had been studying for a very long time--perhaps six years in junior and senior high school and four years in college. Since Peace Corps experience has shown that in acculturation settings a person can become very proficient (e.g., four on the FSI scale of zero-to-five) in two or three years, it seems that in the absence of social and psychological integration with the TL groups, similar proficiency can only be achieved in a period three to five times as long. Also, the person making the observation refers to only one student. Once again, I suspect if we were to dig deeper we would find that this particular language learner is quite unusual. There may be no other fourth year students at the University of Isfahan with his degree of proficiency in English. Therefore, I suspect that if we could measure it, we would find that he had very high language learning aptitude. Thus, this counter example can be explained by factors similar to those that produce success in the Army language schools. In the Army we see *intensity* of instruction and aptitude pumped up to such an extent that they become causal variables, and with the student in Isfahan we see *duration* of instruction and aptitude doing the same thing.

6. In acculturation settings we often see people not only acquiring the TL through informal interaction with TL speakers, but also through formal instruction (classes, tutors, self-study). If acculturation is the causal variable in SLA, what do such learners gain by formal instruction? Instruction may facilitate acquisition in several ways: (a) It may simply provide more input through dialogues, example sentences and exercises. (b) It may help the learner isolate grammatical and lexical elements and thus make them more salient and easier to identify in informal interaction. (c) It may provide the learner with a conscious monitor which can be used to modify his speech in informal interaction.

Perhaps the best way to examine this question would be to have learners keep journals while receiving instruction in an acculturation setting and in those documents address the question of how instruction helps (if it does).

CONCLUSION

As stated in the beginning of this paper, the acculturation model is an attempt to provide a social and psychological perspective on second-language acquisition. The model seems particularly applicable to SLA under conditions of immigration to or extended sojourn in the TL area. However, under other conditions, different models may be necessary. It was suggested that enculturation may be the SLA mode among populations such as elite European professional bilinguals and Tunisians acquiring French. Perhaps additional modes are also operating in other SLA settings. Future research will have to attempt to identify these modes to provide a more complete picture motivating forces underlying successful second-language acquisition.

The Monitor Model & Monitoring In Foreign Language Speech Communication

Kari Sajavaara.

INTRODUCTION

Differences in the skill with which people handle their first language are considerable: apparent fluency and verbosity are characteristic of some speakers, others achieve the same communicative effect with fewer words and with utterances punctuated by hesitation and nonfluency. Today, language is essentially seen as a functionally governed phenomenon. The language skills which are developed are normally adapted to the needs that language users have. Limitations in language skills are only possible in relation to certain norms: very few are able to give public speeches, and the language skills which are required in a school setting can be acquired only through exposure to relevant practices.

Learning a foreign language is, however, a different matter. It is a common experience that several years, even 10-12 years, of foreign language teaching do not provide a skill sufficient for speech communication. Students exposed to a colloquial variant of the language spoken at a normal rate are mostly unable to make sense of the message, and they are able to give expression to their own ideas and intentions only if they have plenty of time. In many cases, foreign language teaching has even succeeded in destroying all natural cues of communication: all personal, emotive and affective signals which could be transferred from L_1 have mysteriously disappeared. The discrepancy between the results and aims of foreign language teaching became even more conspicuous in the 1950s when the emphasis in language teaching moved from grammar and translation to spoken language. In many cases, the result is deplorable, because for many foreign language learners in countries like Finland a certain reading and translation skill might be more important than insufficient ability in speech communication.

Foreign language teaching has a long tradition, but it is a somewhat sad conclusion that foreign and second languages have become viable means of communication for more people without teaching than with teaching. New and "better" methodologies have been developed, teacher training has been revised, complex audiovisual hardware has been developed to assist the teacher, there is a multitude of materials for any doctrine and any approach and, in addition, people move around and have more chances of contact across cultures and languages; yet most foreign language learners find that their skill is negligible and utterly insufficient when they are faced with the need of communicating in the foreign language.

The failure of foreign language teaching can partially be explained by the fact that language teaching methodologies have followed the seesaw movements in linguistic theory quite slavishly. Applied linguistics has been subservient to linguistic theories, and little thought has been given to the problems which applied linguistics is supposed to solve. Linguistic research methodology has been applied to problems which are only partially linguistic. Even after the emphasis in language teaching was shifted over to communicative competence, teachers have remained *language* teachers.

So far, most research dealing with foreign language learning has been mainly concerned with how to *teach* a foreign language, and still today we know surprisingly little about the ways people *learn* languages. One of the major problems is the fact that language acquisition and learning is an area which requires multifaceted cross-disciplinary research and, unfortunately, researchers are not always willing to cross the boundaries of traditional research and teaching domains.

LANGUAGE AND COMMUNICATION

In the last few years, the objectives of foreign language teaching have been widened beyond the requirements of grammatical competence. This reflects the developments in the theory of language. In addition to grammar, linguists today are interested in *how language functions in contexts of communicative and other uses:*

> Speech communication is a series of events resembling a game in which each time we make a move we have to produce for ourselves the piece we intend to move. It is difficult to tell what is more important in the game: if we do not know the pieces used in the game ...we cannot interpret the moves of our opponent even if we know the rules of the game; if we are not acquainted with the rules of the game...the mere skill of recognizing the characteristics of the pieces is not sufficient; if we are not able to shape our pieces so that the opponent can recognize our moves, it will be difficult for our opponent to grasp

> the meaning of our intention in the game. Just like the game of chess, speech communication is a game played by two people whose respective moves always take place in response to those of the fellow player. (Lehtonen, Sajavaara and May, 1977)

Speech games and chess games are different in that the purpose of speech communication is rarely used to checkmate the opponent. In communication, the main goal is getting a message through, and this process normally takes place along some commonly agreed lines. If the communication takes place between two native speakers of a language, most of the rules for the game are normally well-known. If the communication takes place between a native speaker and a non-native speaker or two non-native speakers, it may require some negotiating before the terms of agreement are found, since both parties' initial dispositions may be wrong. In both cases, however, efficient communication is the intention, and the functioning of the two parties is generally pervaded by a willingness to understand (see Jordan and Fuller, 1975).

Fluency is often used as a term to refer to a high-quality performance of an exceptionally good foreign language learner; it is sometimes given as an explicit goal of foreign language teaching. A superficial impression of fluency seems to be transmitted by the continuity of the acoustic signal and its linguistic acceptability, but a rather quick look at what fluency is and is not reveals the extremely complex nature of the problem. Fluency is conditioned by the speech situation, including the hearer's performance; what is "normal" in one situation may be totally unacceptable in another (Sajavaara and Lehtonen, 1978a).

One of the greatest problems in foreign language teaching within a communicative framework is the great amount of variation there is in acceptable language behaviors in actual situations. Most traditional language teaching seems to have been based on the idea of a one-to-one relationship, but not much observation of a single communicative situation is needed to reveal the true nature of variation. Moreover, the utterances may make sense within one language system and within one culture, but their word-for-word translation into another context and another culture may prove to be totally meaningless. To be successful, foreign language teaching needs to somehow overcome the problem of social knowledge which is not categorizable in the same way as grammar may be. The "game" principle affects the functioning of language in social settings. While language teaching has always been essentially static, communication is dynamic. In communication, people create their own terms of agreement which incorporate both linguistic and other behaviors.

In foreign language teaching, the emphasis has traditionally been on the production of acceptable chains of utterances Communication, however, involves constant switching over of the converse roles of the speaker and the hearer. In many cases, communication fails, not because the speaker-hearer is unable to produce signals that can be interpreted in the right way, but because he is unable to adjust to the signals which he is receiving. It seems to be the underlying assumption in many foreign language teaching materials that teaching speaker performance is sufficient and that listening skills and hearer performance will develop alongside. Yet, in most cases, the models given for speaking are based on some standardized variety of the language which is seldom the variety the native speakers use in everyday speech communication, or which may even be totally inaccessible to them.

In stressing the importance of input in language acquisition, Krashen points in the right direction. He even suggests that speaking too early may be detrimental to the results of language teaching, since it may force speakers to resort to L_1 communication strategies, and in certain situations, speakers may find it easier to maintain these strategies later. According to the skill theory, which will be discussed below, this can be explained as a natural tendency toward automatized programs for capacity-saving purposes.

When talking about input, it must be remembered that this input is not simply grammatical input; due consideration must be given to the natural variation that is an integral feature in every language. In many cases, attention may need to be paid to understanding certain regional and social varieties and varieties which are affected by interference from other languages, rather than to understanding the standard variety. English is, after all, the language of international communication, and from a Finn's point of view, for instance, it is often more important to understand the kind of English that is spoken by a Swede or a German--a kind of Swedish or German RP (received pronunciation) due to a common RP model--than to understand real RP or some British or American vernacular.

The earlier theories of speech communication, which were based on the Shannon model of communication and saw speech production and reception as reverse processes--mirror images of each other--are no longer accepted (Lashley, 1951). If interpretation of messages were to take place after the reception of the acoustic signal, no communication at the regular rate of human interaction would be possible. To a great extent, the native speaker relies on the capacity of prediction which derives from his experience with the language, language behavior and communication; perception means parallel construction of the message from all available cues and checking this prediction with the acoustic signal (see Tarone, 1974).

The difference--of which a native speaker may be totally unaware--between the idealized form of a language and the native speaker's actual speech performance will always remain a problem in foreign language teaching. In most cases, a foreign speaker who is very familiar only with textbook presentations or a non-native teacher's variant of the language directs too much of his attention toward the perception of the surface features of utterances. This is even more true if his knowledge of the situational factors is insufficient for him to make intelligent guesses. In practice, this means that foreign language learners should be exposed to the language spoken colloquially at a normal or near-normal rate from the very beginning (If the rate of speech needs to be slowed, it should be brought about by lengthening the pauses.) and to a variety of regional/social and attitudinal/affective varieties.

THE MONITOR MODEL

Krashen (here and elsewhere) defines his Monitor Model as a theoretical framework to describe the internalization of target-language rules by the adult second-language learner. This process is possible in two ways, acquisition and learning. Language acquisition refers to an unconscious process unaffected by overt teaching, which is how children acquire their L_1 or L_2. Language learning takes place through explicit presentation and memorization of rules. According to the model, these two processes are independent (Krashen, 1977a): acquisition is possible without previous learning and learning occurs without necessarily leading to acquisition. It is the learned system which gives the name to the Monitor Model: "conscious learning is available to the performer only as a Monitor." According to Krashen, adult second-language performance "is initiated by the acquired system," and what has been consciously learned "may be used to alter the output of the acquired system." He states explicitly that this is the "essence of the Monitor Model," but that monitoring is also possible on the basis of the acquired system (e.g., for self-correction after slips of the tongue). Krashen posits two major constraints to the use of the Monitor: time and, even more important, focussing on form.

Krashen's model is easily acceptable on the basis of the intuitive knowledge available to anybody who has learned, or is in the process of learning, a foreign language. It can be considered a breakthrough in the development of the theory of language acquisition mainly because this is the first time that many individually well-known phenomena can be explained by means of an explicitly formulated model. What makes Krashen's work remarkable is not so much the novelty of the ideas behind it, but it's the first consistent formulation of the overall system. No future work can ignore Krashen's initial model. A great deal of work will have to be done in the future to refine the model and locate it within a more extensive model of language acquisition/learning and communication. At the initial phases of its development, it may have been theoretically rewarding to restrict the model to adult second-language acquisition; however, restricting the application of monitoring and the Monitor to the way in which an adult makes use of his learned system proves impossible (even in the light of the material that is provided by Krashen himself). Monitoring is not limited to adult use of a second language, and therefore it seems rather difficult to keep Krashen's Monitor Model distinct from the monitoring which seems to be a regular phenomenon in all speech communication.

Questions that need to be answered include:

- How does Krashen's model relate to the overall theory of language behavior? What is actually monitored?
- Is there any difference between L_1 and L_2 as far as the use of a monitor is concerned and, if there is, what is the real nature of this distinction?
- What is the nature of the constraints on the potential uses of the monitoring device from the point of view of the entire communication process?
- Can learning and acquisition be kept as distinct and independent systems? Can learning lead to acquisition or is acquisition only an independent side-effect of learning?

Monitoring and the Monitor Model

Regardless of the true nature of monitoring, we will have to consider two areas which seem to affect the use of the monitoring device: these are the reference system and the constraints on its use. Both are discussed by Krashen within the framework of the Monitor Model.

The existence of monitoring has been known for some time (most speakers become now and then conscious of the process). Labov (1970) writes:

> ...norms acquired later in life, especially after puberty, never achieve the automatic regularity of a Type I rule. A certain amount of audio-monitoring, or attention paid to speech, is necessary if any degree of consistency is to be achieved with such patterns. When the speaker is tired, or distracted, or unable to hear himself, this acquired or 'superimposed' pattern gives way in favor of the native vernacular acquired early in life. He may also stop monitoring his speech for the opposite reasons--when he is intensely excited, emotionally disturbed, or very much involved in the subject. It is an important sociolinguistic principle that *the most consistent and regular linguistic system of a speech community is that of the basic vernacular learned before puberty*. The overt social correction supplied in the schoolroom can never be as regular and far-reaching as the unconscious efforts of "change from below" within the system.

Labov also refers to psychological experiments carried out by Mahl (Labov, 1966; later also reported by Mahl, 1972) to study the effect on speech performance of white noise preventing speakers from hearing their own speech. He concludes that "spontaneous speech as well as casual speech...is accompanied by a reduction in audio-monitoring by the subject. An increase in audio-monitoring would correspondingly accompany a shift to more formal styles." However, this is not to be interpreted to mean that audio-monitoring automatically brings about grammatically well-formed utterances; Labov (1969) also provides us with the information that the "highest proportion of well-formed sentences are found in casual speech, and working-class speakers use more well-formed sentences than middle-class speakers. The widespread belief that most speech is ungrammatical is no doubt based upon tapes made at learned conferences, where we obtain the maximum number of irreducibly ungrammatical sequences." Wolfson (1976) also states that attention to speech may produce utterances that are less rather than more formal.

The nature and operation of monitoring remains to be studied, but even the little that Labov says about it seems to indicate that monitoring is a highly complex process not restricted to second-language performance. If monitoring is defined as "attention paid to speech" (Labov, 1970; also see Cazden, 1972), we must start with the assumption that people always monitor their speech, whether they use their mother tongue or a second/foreign language, unless there are certain constraints (Laver, 1973). Cazden (1973) asks whether it is actually possible to speak of monitoring as one single process and she suggests the possibility of several monitoring levels: (a) the automatic feedback processes present in all speech production; (b) unconscious dialect switching; and (c) deliberate stylistic choices of words and syntactic constructions for greater explicitness. Cazden also asks whether the last type of monitoring can be equated with metalinguistic awareness and connected with intrapersonal functions of language.

Very little is known about the exact nature of the processes that precede the production of the actual speech-signal. Laver (1973) divides the processes into four functions: ideation, neurolinguistic program-planning, myodynamic execution and monitoring. He defines monitoring as "the neural function of detecting and correcting errors in the neurolinguistic program," where errors are those which "persist to the utterance-stage" (Laver, 1973). Thus, monitoring, as Laver sees it, seems to be the same process that is prevented by the white-noise experiments referred to above (although the white noise seems to affect the program-planning functions, too), and the same as Cazden's first monitoring type. What Krashen is talking about, and what is also referred to by Cazden's types two and three, belong to Laver's neurolinguistic program-planning (Laver, 1973): "the organization of a neural program for the lexical, grammatical and phonological characteristics of the message the speaker intends to communicate." It is typical of this function that it initiates more items than are finally used for the program, which implies that "the planning function must be able to scrutinize the various alternatives that have been retrieved from storage, and come to a decision of the relative appropriateness of the competing items for expressing the initial idea." In accordance with Lashley (1951), Laver points out that the brain inhibits the final production of the utterance stretches until their preparation is complete. In the meantime, the items are stored in short-term memory. "[T]he planning function has many opportunities for revision of its programs, and for checking for program-errors..." (Laver, 1973). Both the Planner and the Monitor aim at editing the output so that there are a minimum of errors; this editing involves constant attention to various phases of the implementation of the program. Thus, the Monitor and the Planner seem to be two facets of similar processes: they need recourse to similar information, i.e. the original idea and the program plan, which are available in short-term memory. Krashen's Monitor is a consciously acquired reference system which functions in the service of both the Planner and the Monitor.

The distinction between acquisition and learning relates to the distinction between informal and formal learning, of which there is substantial evidence from outside of language behavior (d'Anglejan, forthcoming). Complex tasks are learned by people through meaningful exposure. In many cases, explicit verbal formulation of rules is either impossible--because there is not suitable conceptual framework, for instance--or so time-consuming that it is not worth the effort. Speech behavior at the rate people are generally capable of is only possible if a great number of the skills that are required are automated: "much of speech performance may well be achieved by synergisms--skilled, well-practiced routines, which, once started, can be left to run to completion without sensory information making a primary contribution to their control" (Laver, 1973). A great deal of the functioning of this system can be explained by means of the attention and skill theory (Levelt, 1977). According to this theory, the execution of complex tasks requires attention, but there are limits to the attentional capacity available (the capacity increases with the difficulty of the task to a relatively high level, but when the ceiling is reached, it suddenly begins to diminish). The skill is interpreted to mean a person's ability to carry out a complex task well (what is "well" at one occasion may be insufficient at another). Tasks consist of hierarchical structures of subtasks, and complex tasks are carried out according to plans and programs which initially require large amounts of effort and attention. After certain lower-level tasks have been automated, more capacity is available for higher-level planning and for subtasks which have not been automated.

Acquisition and learning seem to be different in that acquisition leads to skills which are automated for the most part. After acquisition the programs and plans which are necessary for the execution of tasks require a minimum of attention.

Learning mainly provides for storage of separate items and ingredients of subtasks whose retrieval from long-term memory requires highly complicated and capacity-consuming processes; the number of readily available plans is small.

Neither acquisition nor learning is restricted to L_1 or L_2, nor are they restricted to verbal behavior only; in all human communication there seems to be recourse to formally and informally learned elements. What is decisive here is that, unless the plans and programs necessary for the execution of a task are "acquired," the planning device will have to resort to learned items, which requires more processing and consumes more capacity. In this planning process, acquired and learned elements are intermingled, and it can be expected that in the long run, plans which initially require plenty of attention become easier to implement. It is understandable that speech production starts from the basis of what is acquired, i.e. speakers apply an efficiency principle and resort to capacity-saving programs first, but if the Planner receives a negative answer as to the availability of plans and programs, it seeks information that is available through other channels, including information that has been received through conscious learning. At all levels, the Planner may decide to use nonverbal means of expression instead of the verbal ones, either because they seem to fit the context better or because the tracking device fails to find relevant verbal material in memory. The monitoring function obviously works in the same way: both acquired and learned items are used in accordance with the requirements of the task.

In these processes no real distinction is made between form and meaning. Both planning and monitoring are mainly concerned with efficient execution of the initial intentions of the speaker: the message is also monitored.

Constraints on Planning and Monitoring

Conscious awareness of the necessary planning and monitoring processes seems to be a function of parameters which originate both in the speaker and in the situation where he is using the language. An ideal execution of the task is not only dependent on the capacity available, but also on constraints set from the outside, and in some cases, the external constraints may surpass the influence of parameters which can be controlled by the speaker.

Krashen mentions two important constraints on the use of the Monitor: time and focussing on form, i.e. on the speaker's reliance on the learned system. He points out that time alone is not sufficient because people do not always apply their conscious knowledge (monitor), even if they have the time for it. He states that "in normal conversation, both in speaking and in listening, performers generally do not have time to think about and apply conscious grammatical rules." The situation seems to be more complicated than that. In addition to the problem of defining "normal" conversation, it can be assumed that the state of available processing capacity is in constant flux in any kind of conversation.

Planning and monitoring can be constrained by a matrix of both external and internal factors. The internal factors include complexity of the task, state of mind (see Yngve, 1970) adapted to the needs of the communicative task, various psychological and socio-psychological factors, and state of automation and selection of programs and plans. The external factors include various task demands, interactional factors and situational constraints. Focussing on form may result from either the internal or external reasons or both. Resulting performance is a compromise between task demands and available capacity.

The state of mind as defined by Yngve (1970) contains "all of the relevant information, linguistic and non-linguistic, that the language user needs when carrying on communicative activity." State of mind is closely connected with the external factors of the situation and interaction. It is not static, but dynamic; it changes with the progress of interaction, and it is impossible to return to a state which has been left behind.

Insufficiency of relevant information obviously results in a failure in language behavior. It is mentioned by Levelt (1977) as one of six causes of failure. Insufficient automation, for its part, does not necessarily lead to failure in communication because task demands and available capacity may make it possible to reach required performance. According to Levelt (1977), too low or too high states of arousal may lead to insufficiency of capacity. As reasons for too low a level he mentions fatigue and influence of certain drugs; too high levels may be caused by intrinsic factors such as very high tasks demands or extrinsic factors such as anxiety, examination stress and certain drugs. Failure may result from dispersion of attention because the subject may have to carry out other tasks, he is under the influence of drugs, he is tired or he is embarrassed, nervous, angry, scared or in some other similar psychological state (Laver, 1973). Insufficient supply of capacity and loss of attention may also be caused by an increase in the need of problem-solving capacity. Again, it must be emphasized that too low arousal levels need not necessarily result in defective performance because the task demands may require totally automated programs, for instance.

Widdowson (1977), when discussing a distinction he makes between what he calls reference rules and expression rules (resembling to a great extent Krashen's distinction between the learned and acquired systems), points out that "learners do not match what they do with what they know because normal communicative activity does not require them to do so." He also refers to the similarity between what a language learner does and the stylistic variation described by Labov (1972). "[T]he learner's strategies are, in effect, realizations of universal tendencies (Widdowson, 1977)."

LANGUAGE ACQUISITION SEQUENCE AND L_1

There is plenty of evidence that language development follows a certain consistent pattern. The evidence for the morpheme acquisition sequences both in the first language and in the second language is quite convincing and, as Krashen points out, it is useless to question the reliability of the morpheme acquisition studies. Another matter is the question of the generalizability of the results to the whole process of language acquisition, i.e. to levels of linguistic and communicative competence which are outside the sphere of the morphemes, and to foreign language learning in formal classroom situations. First of all, morphemes are only a fraction of what Shuy (1978) calls the "tip of the iceberg"--the words, sounds and surface grammar--while the "continuous series of interrelationships of phonology, grammar, lexicon, semantics, pragmatics and general discourse processing strategies" remain unaccountable. Shuy points out that "language beneath the water level is a great deal more important in language learning than that which is *above* the water line."

The morpheme sequence studies have been used to deny the influence of L_1 in the second-language acquisition process, and this seems to be a rightful conclusion from the material in the way it is interpreted. It may also be true that in a "natural" second-language acquisition situation, the influence of L_1 on the *English* morpheme *sequence* is negligible (the result may be partially due to the type of morphology there is in English). Individual morphemes may, however, cause different kinds of problems for different L_1 groups, and the putting together of various syntactic-semantic functions of one and the same "morpheme" may be misleading. For a Finnish learner of English, the whole idea of an article morpheme is initially a problem, because there are no articles in standard Finnish but, in addition, the definite article, the indefinite article and the zero article each pose varying degrees of problems in their different functions--the generalizing function in particular (Sajavaara and Lehtonen, 1978b).

The pidginization and creolization of languages are processes which by their mere existence imply cross-language influences. In most cases, these influences are bidirectional--not just L_1 affecting L_2, but also L_2 affecting L_1--and the possibility of there being several L_2's complicates the picture still further. It is also true that at various stages of language acquisition/learning and of language proficiency these influences are felt in different ways and through various channels. In practice, the setup is seldom that of a laboratory where a bilingual's two languages may be kept apart; in real-life situations there exists interaction between the languages which intervenes in the "natural" sequence (e.g., various degrees of code-switching, borrowing and translation).

Interaction between the rule systems of the variants of the same language is taken for granted by Labov (1970): "The knowledge of one system inevitably affects the other. The rules of standard English and its nonstandard relatives are so similar that they are bound to interact. Languages and dialects are not so carefully partitioned from each other in the speakers' heads that the right hand does not know what the left hand is doing." It would be surprising if bilinguals or language learners were more competent in keeping the languages apart. It may be easier if the languages are far enough from each other (which, by the way, is the reverse of the implications of the early contrastive hypothesis), but even then it must be remembered that languages do not exist as grammatical systems to be described by a linguist, but as means of communication, and the link between languages via communication is always present.

To a great extent, all depends on what we mean by cross-language influences, by "interference" and transfer. Do we mean just the transfer of structural linguistic elements which used to be discussed in traditional contrastive studies (which, it seems, is also reflected in the denial of L_1 influences through the morpheme sequence studies)? Or do we take the various grammatical, notional, referential and sociolinguistic elements into account with all the possible interaction between them? The continuum reaches from the entire conceptual system making up part of a certain culture down to single morphemes of the grammatical system of a particular language. One of the major defects in the earlier contrastive (and also interlanguage) hypotheses was their isomorphic nature; linguistic elements were not seen as parts of an entity--communication--but were considered as units in their own right and, as such, transferable. Grammatical units such as they are described by grammarians may never reach the awareness of some language users, and they definitely are of secondary importance in input, as is reflected by caretaker speech (Snow and Ferguson, 1977).

It is impossible to deny the existence of foreign accents, and it is rather easy to distinguish a German speaker of English from a Polish speaker of English. But what makes a "foreign accent" is still, for the most part unexplored. It seems to be a complex of factors which are obviously partly phonetic and phonological, partly paralinguistic, but how these features interrelate with other levels of linguistic description to produce a foreign accent is not known. Varying degrees of "accentedness" are also found in certain American dialects and American English variants spoken by ethnic minorities. What is needed is more work on various interrelationships between languages from an "open" viewpoint, research which is based on natural language data and not restricted to supporting this or that theoretical standpoint or to considering one possible source of influence only. A prime example again is the English article system (one of those systems which can only be acquired). The way it is dealt with in the studies by Dulay and Burt (1973) is very straightforward. Since studies into the acquisition of English as a first language have shown that native speakers have problems with their articles at a certain stage of development, in second-language acquisition all article errors are counted as being due to creative construction, i.e. it is something that derives from the universal strategies of second-language acquisition. This does not, however, remove the possibility of L_1 influence. Why should there be just one explanation? Most people working with errors and error analysis have often been faced with the situation that they cannot choose between several possible explanations. Why should a theoretical standpoint be any different? As Chesterman (1977) points out, there may be varying degrees of influence, and rule generalization (a term used by Wolfram et al, 1978, instead of overgeneralization) may be reinforced by the existence of a similar phenomenon or element in L_1 or by a totally different phenomenon or element which causes a shadow effect of some sort.

In this area, more research is needed in which the Dulay and Burt type of bilingual measurements are replicated with speakers of various L_1 backgrounds, but in addition we need at least four kinds of other studies: (a) expansion of the sequence studies outside morphemes; (b) breaking down of the morphemes into syntactic-semantic functions and observing the appearance of various subcategories; (c) studies in which the stages of the morpheme sequence and other sequences are correlated to stages in the development of children's communicative skills, because, after all, what is important is communicative efficiency; and (d) replication of all these studies in a foreign language environment.

More information is also needed about individual variation in language acquisition. Because of the statistical methods used, most morpheme acquisition studies give the impression that the acquisition sequence is more or less uniform and the amount of individual variation is restricted to the minimum. As always, statistics may be misleading because the main point in having statistics is in giving a uniform picture. If the number of subjects is great enough, it is quite easy to get close to the "normal" curve, but this does not mean that there is no individual variation. If the number of subjects is small (Hakuta, 1974), or a method is used where the researcher's attention is directed toward variation (Fillmore, forthcoming, and Andersen, 1977), we will be able to see that each individual subject, or even each individual L_1 group, need not conform with the "normal" curve.

If the existence of monitoring at several levels is accepted, the only possible conclusion is that the starting-point for the study of language transfer (regardless of what is transferred) has been too simple. If the acquired and learned systems are referred to several times during the communication process, it is possible that, if there is sufficient capacity, strings that have been initiated by means of the acquired system in the correct form may be transformed under the influence of the learned system, possibly consisting of rules concerning both L_1 and L_2 or some other languages, through the functioning of the Monitor. If we only consider the final product--the utterances by the speaker--it is impossible to tell what the process has been which has led to this or that surface string or this and that communicative behavior. It seems that we need research where the influence of the monitoring function as defined by Laver could be detected. Tests where the subjects are asked to concentrate on form or on communication, such as those carried out by Krashen (1977b), are only a beginning, and we need more sophisticated methods for doing this.

SOCIAL AND PSYCHOLOGICAL ASPECTS OF LANGUAGE LEARNING

Both Krashen and Schumann emphasize the importance of social factors in language learning. Krashen calls attention to the lowering of the socio-affective filter (see Dulay and Burt, 1977); Schumann considers the psychological proximity to be more important than the social one, but he lists a great number of parameters that fall into the category of social variables.

It may be rather difficult to measure social and psychological distance and locate language learners on a continuum based on differences in such distances. Many social variables, such as dominance, assimilation and enclosure, are so closely interrelated with psychological variables that one single psychological factor may annul the influence of all social variabals. Schumann calls his model "the Acculturation Model," where acculturation refers to the disappearance of the socio-psychological distance, i.e. "the social and psychological integration of the learner with the target language group." He says that "the learner will acquire the second language only to the degree that he acculturates." What is important here is the observation (also found elsewhere, see d'Anglejan, forthcoming) that language learning is the result of socio-psychological proximity and not the other way around. Children do not fail in school because of language problems; the language problems they have derive mainly from reasons which are connected with social and psychological factors. Language and acculturation are very closely connected with each other,* but it may perhaps be wrong to maintain that language acquisition depends entirely on the

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** There is plenty of evidence on the importance of socio-psychological proximity in the American experience with bilingual education. Too little attention seems to have been paid to the influence of such socio-psychological factors as the attitude of the majority culture toward the minorities (discussed by Skutnabb-Kangas and Toukomaa, 1976; see Paulston, 1977). The importance of self-esteem and ethnic identity for a minority student is now rightfully emphasized, but in many cases the loss of self-esteem or denial of ethnic identity derives from the attitude of the majority.*

degree of acculturation. Native-like competence in the target language is required before full integration to the target culture is possible. At a high level of sophistication, language and culture are inseparable.

Schumann's model applies to second-language acquisition in natural settings only. In foreign language learning the situation is quite different because most social and affective variables lose their importance in conscious learning. There are a number of factors which seem to correspond to the social variables listed by Schumann in his Table 1. Dominance, nondominance, subordination and size are factors which may effect interlanguage contacts across national boundaries. For instance, the function of the English language today as the primary medium of international communication makes it an important target language particularly in countries like Finland, whose language is not spoken outside its boundaries; English comes before French and German, or even languages such as Swedish (which is the second language of the country) and Russian, whose relative importance has increased enormously since World War II. Assimilation, acculturation and congruence relate to the proximity of the target language culture and the target language to the learner's culture and language, and all these together with attitude are connected with the learner's willingness to identify himself with the target culture, a socio-psychological factor which is often mentioned as the most important element in integrative motivation in foreign language learning. Intended length of residence and number of contacts with speakers of the target language are of importance in foreign language learning, and they may be connected with either integrative or instrumental motivation.

Language shock among Schumann's affective factors is quite important in foreign language learning; it may take quite a long time before a Finn, for instance, is able to get over the feeling of sounding somewhat comic when speaking English. This feeling is mostly reinforced by the presence of other Finns in the speech situation. In foreign language learning, culture shock seems to be mostly unimportant.

Motivation remains the most important variable in foreign language learning. With English as a foreign language the instrumental factors are often more important than integrative motivation, although the importance of English as a medium of international communication distorts the picture. A willingness to be able to communicate with foreigners in general may perhaps be counted as an element in integrative motivation.

The problem with instrumental motivation is the fact that when people study a foreign language for clearly defined purposes, there is seldom very much interest in the language itself, and it is difficult to separate the language from other goals. If language learning is supposed to be the medium for reaching these goals, although there are some alternative routes, no language learning proper will take place. For instance, certain professional qualifications may require certain language qualifications, which are mostly measured by means of a test; passing the test becomes the main target, which may be quite different from real language competency unless the test is designed to measure functional competencies in professional contexts. In teaching English for special purposes, at least at more advanced levels, the distinction between language teaching and vocational training also gets hazy and even disappears. Language makes sense only if the learner is acquainted with the "world" which is behind the language. Sometimes this poses a real problem because one may not be possible without the other: the foreign language is needed for the transmission of such information as is actually needed for understanding specialized texts and discourse in the foreign language.

Personality factors interact with social and psychological variables to such an extent that it may be impossible to keep them apart. Fillmore (forthcoming) shows convincingly how good social skills, which are mainly the outcome of certain personality factors, increase the amount of input in second-language acquisition. In foreign language learning, personality can be important in the same way and certain positive characteristics are to be considered essential for a good language learner (Omaggio, 1978). Personality factors cannot be easily manipulated, and therefore can be considered an intervening variable only.

Since the lowering of the socio-affective filter directly relates to language acquisition, it seems to be of lesser importance in foreign language learning. This implies that acculturation such as it is defined by Schumann should perhaps be replaced by some other term when we are dealing with foreign language learning. Acculturation can be compensated for by various language aptitude factors, which primarily relate to general academic success: students who learn easily also "learn" languages. The socio-affective variables which influence school performance as a whole, i.e. assimilation and attitude, function in conscious language learning similarly. Krashen points out that aptitude, such as it is measured by the well-known language aptitude tests, has little relevance for language acquisition. If the objective of foreign language teaching is efficient speech communication, language aptitude tests should not be given too much importance unless it can be shown that good results in conscious learning improve the conditions for language acquisition.

CONCLUSION

Both Krashen and Schumann indicate that language acquisition is not a language teaching methodology problem: acquisition will take place if language is used for meaningful communication, the socio-affective filter is lowered and there is enough input in context which is communicatively meaningful for the learner. The function of the teacher and teaching methodology is that of a helper.

Since intake is possible through understanding only--at the early stages of language acquisition, this understanding may be "functional," i.e. the learner knows the functional meaning of prefabricated phrases--the main task of the teacher and teaching methodology is to bring in communicatively meaningful materials. This is the area where most language teaching methodologies have failed, not primarily because they were wrong as methods, but because teachers have seen themselves mainly as teachers of *language*--language meaning the grammar and vocabulary of the language concerned. From very early on, it is the natural tendency of a human being to focus on message, and academic language teaching--mainly in L_2 but in some countries also in L_1--has emphasized form.

Much more research is needed as to the communicatively meaningful results of conscious learning, so that language teaching objectives can be purposefully adapted to the potentially achievable goals in formal language teaching situations. More information is needed about the interrelationship between acquisition and learning and the transfer of learning over to acquisition, and about various input channels, such as extensive reading, and their relationship to acquisition. Very little is known about the effects of exposure to natural language use at a relatively advanced stage of language learning.

Krashen's Monitor Model undermines the objectives of modern formal language teaching programs in that classroom teaching of foreign languages cannot really reach such objectives as are normally set for it. However, the outcome need not be that negative: the work on the Monitor makes it possible for us to make the language teaching objectives more sensible, and it will be possible to concentrate on the language skills which are teachable. More research is therefore needed on the "learnability" of various language and communicative subskills. What is also needed is research on the priority of various communicative factors for language teaching purposes to answer the question of what kind of information the students should be given about the language and its use. Hierarchies of the communicative importance of various cultural, social, notional and grammatical parameters are urgently needed.

Implications of Research On Adult Second-Language Acquisition for Teaching Foreign Languages to Children

Muriel Saville-Troike

Applied linguists whose primary interest is in research can potentially make a significant contribution to such fields as language teaching, but unfortunately this potential is seldom realized. As with researchers in other academic fields (including such "pure" sciences as physics and chemistry), many linguists tend to believe that their data and theories are inherently relevant to applied concerns--if only they were properly interpreted and implemented by "lower" levels in the field. When linguistic research is not utilized, it is often assumed that this is so because practitioners are not keeping up with current developments in the field, or are suffering from inertia. But reasons for the gap between research on foreign or second-language learning and its application in language teaching methodology are not so simple.

This is not to deny that bringing about changes in language instruction requires overcoming both inertia and ignorance. But before current linguistic research can have any significant effect on classroom procedures and materials, practitioners must first be convinced that change is needed. Perhaps in the past, linguists have been too successful in proselytizing the language teaching profession with the doctrine of the audio-lingual (aural-oral) method, and thousands of teachers throughout the world have given up the evil ways of grammar and translation, and have embraced the true faith of mim-mem drills, substitution frames, transformation exercises and listen-speak-read-write. Commercial publishers and curriculum writers have long since been persuaded by authoritative pronouncements invoking the name of linguistic science, and the audio-lingual method is presently entrenched in most schools and colleges in the country. Embarrassingly, now that linguists have radically changed their views on the nature of language and language learning, the very success of earlier linguists in gaining converts to "scientific" methods of language teaching has become the major obstacle in bringing about new changes. Educators and publishers are not unnaturally skeptical, and must be shown convincing evidence that suggestions for change are not transient fads. More importantly, they must be provided with very practical methods and materials with which to implement the reformation.

These goals can certainly be fostered by the research efforts of applied linguists, but the researchers' assumptions and conclusions will not and should not again be accepted as an act of faith. Far too much of the "scientific" procedure in applied linguistics is still based on unfounded assumptions and simplistic notions of the nature of language, students and education, and too many applied linguists still know too little about the realities of the school classroom.

Schumann's observation that the history of language teaching methods has been characterized by the pendulum effect and that no cumulative progress seems to have been made might also be said of the research upon which the methods are based. Research evidence remains inadequate, contradictory or questionable on a number of key points, including such matters as (a) the influence of larger aspects of social environment and culture on language learning; (b) the relationship of language learning to other aspects of enculturation or acculturation; (c) similarities and differences between first- and second-language acquisition; (d) language learning processes in adults vs. children; and (e) the relative effectiveness of particular language teaching strategies.

Both the Acculturation Model posited by Schumann and the Monitor Model posited by Krashen are intended to account for foreign language learning states and processes in adults, and are primarily based on research with adults ranging in age and status from 20-year-old college students to middle-aged immigrant laborers. Most of the suggestions for teaching methods and materials which are discussed in these papers also consider adults to be the target group for instruction. It is my intention to assess the research findings and suggestions Schumann and Krashen have made which are potentially most relevant to teaching foreign or second languages to children.*

To begin with, Schumann's conclusion that the only variables which can be manipulated in foreign language programs in the schools are the teacher, the method and the text, and that these variables are not particularly significant or particularly interesting or useful for education purposes. However, he underestimates one of the most powerful and significant variables of all: the *social environment* within which the program operates--including that in the school--which *can* be changed, and he fails to give adequate consideration to cultural factors affecting the students, community and school. On the other hand, the extensive taxonomy Schumann presents of socio-psychological variables which may influence second-language learning is potentially a valuable contribution to curriculum design and organization, teacher training, classroom pedagogy and both student and program evaluation.

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* *I am using the terms "foreign language" and "second language" rather loosely, since the distinction is not made in the research which I am reviewing, but following accepted usage, I generally employ "second language" when referring to a language which must be used as a medium for educational and social participation in the dominant society (as English in the United States).*

It seems quite possible that no single identified method appears to be better than another when diverse groups of students are evaluated just because research design in this field has generally been overly simplistic, and because the many variables which Schumann lists, among others, have not been taken into account. The success of particular methods, teachers, texts and even goals of instruction and models for curricular organization is likely to prove relative to particular social and cultural settings and socio-cultural and psychological characteristics of students. It is this relativistic perspective which I believe we must assume.

Schumann concludes that certain variable characteristics (such as desire to assimilate, low enclosure and cultural congruence) are "good" for language learning in some absolute sense. The more relativistic position would suggest that an effort be made to discover which instructional variables yield better results in various settings with students possessing a given set of socio-cultural and psychological characteristics. While these characteristics indeed can seldom be manipulated in foreign language programs, the instructional variables can be, and informed program decisions for specific populations of students might well produce significantly better educational outcomes.

For example, students who are part of a cohesive, subordinate group which wishes to preserve its own life style and cultural values and not assimilate to the group which speaks the target language, possess a set of characteristics which, according to Schumann's model, will strongly inhibit them in their second-language acquisition. (This will, however, be strongly affected by socio-economic level, external social attitudes toward the group and parental attitudes toward education.) One might hypothesize that these students would learn the second language more effectively by having a teacher-model who is from their own group than they would from a native speaker of the target language; by learning vocabulary drawn from a "neutral" content area of domain rather than one of great importance to native cultural identity; by de-emphasizing "accurate" phonetic production rather than aiming for "sounding like a native" speaker of the second language; and by including the second-language instruction as one component of an education program which recognizes and respects the viability of the native language while adding the second (as in maintenance bilingual education).

On the other hand, it would seem reasonable to hypothesize that students from a small group with little cohesiveness, with a positive attitude toward speakers of the target language and a desire to assimilate with them, might well learn the target language better by having a teacher who is a native speaker; by learning the vocabulary of its life ways; by learning the "proper" accent to be worn as a badge of group membership; and by "mainstreaming" in the dominant educational system of the target group as soon as possible. (Again, socio-economic and external social attitudes may have an effect.)

The related concept reported by Krashen that a lower "affective filter" contributes to language acquisition might also be perceived as a relative set of socio-cultural and psychological factors rather than absolute positive or negative influences in foreign-language learning. How such variables might be considered when making decisions on the relative appropriateness of teachers, methods, materials and student placement is illustrated by Genesee (1978), whose data suggest that students of different personality types achieve differentially in the more traditional French as a second language program vs. immersion.

An example of cultural differences in child-rearing practices influencing the appropriateness of different language methodology can be found in a California study which taught English as a second language to five- and six-year-old Spanish speaking students from families of farm laborers.* The project --in which males learned significantly more English than females --made extensive use of games and physical activities. Most of the boys in this population had been allowed considerable freedom at home while their parents were working in the fields, and at school they were extroverted, enthusiastic about trying new games, ready chance-takers and not inhibited about making mistakes. In accordance with traditional Hispanic culture and socialization patterns, most of the girls in the population had been confined to the house and given responsibility for the care of younger siblings, even when they were only young children themselves. At school they were appropriately introverted, shy and inhibited about trying new activities (thus exhibiting signs of a higher affective filter). It can be hypothesized that the poorer second-language performance of the girls was at least partially attributable to inappropriate teaching methods (which followed the best "linguistically-approved" methods of the time). But if the program design had taken into account the different socio-cultural and psychological characteristics of the children by differentiating methods according to sex, and perhaps by assigning boys and girls to separate treatment groups to obviate the effects of the intervening variable of cultural taboo on girls' behavior, the language learning differential might well have disappeared and equalized the language learning opportunity. Such hypotheses can and should be tested.

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* *This study, in which the present author participated, was one of the USOE cooperative reading research projects, and was conducted in Fresno County, California during 1964-1965 with a population of over 200 Spanish speaking kindergarteners. It was directed by John Manning and Fred Brengelman; I was responsible for preparation of all instructional materials, demonstration of teaching methodology and supervision of instruction for the duration of the project, and thus must take responsibility for any inappropriateness in the methods which I report. Sex differences in achievement have also been reported by Huzar (1973).*

As a starting point, the complex taxonomy of factors influencing second-language acquisition formulated by Schumann should be utilized in all future research in this field. Generalizations and theories drawn about learning or teaching processes which do not relate results to all of these factors are naive, and must remain suspect and of limited usefulness to anyone applying the theories to teacher training, materials development and classroom practices. Ultimately, Schumann, despite his own negative conclusions, may be providing us with a way to "unpack" the currently nebulous concept of cultural discontinuity in learning and relate it to appropriate contexts for the acquisition of foreign language--and all other educational content.*

Obviously not all socio-cultural, psychological and instructional variables can be controlled for research purposes, but unless they are at least accounted for, no accumulation of "data" on second-language acquisition will help answer a critical question in foreign language teaching: *who learns what best under what circumstances?* Small controlled studies can certainly contribute to our understanding, but their contribution is severely limited when they do not provide enough information about the subjects and the context of instruction for their results to be fitted into a cumulative picture.

The need for incorporating increased complexity in applied linguistics research relates also to very basic changes which have been occurring recently in the field of linguistics. With a changing view of the nature of language to include far more than phonology, lexicon and grammar, and with an increasing scope of social concepts and behaviors coming within the province of linguistic description and analysis, applied linguists, like descriptive linguists, must now consider not only the codes (or language forms) used for communication, but their functions and socio-cultural contexts as well. Even when the focus is on language learning, the complexities recognized in the fields of psychology, sociology and education must be considered if results are to have any validity.

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* *A contrary view is expressed by Gardner, who claims that second languages are unlike any other curriculum topic because other school subjects include learning elements of the student's own cultural heritage. I believe a clear distinction must be made between the formal education of children who are members of the dominant culture (which is indeed a continuation of the* enculturation *process) and children from minority groups, for whom one of the primary functions of the school is to inculcate the culture of the dominant group (*acculturation, *in anthropological terms). The only exceptions to this would be where policy dictates and implements segregation of minority groups from instruction in the language and culture of the dominant society (e.g., in South Africa or various western European countries). Bicultural education involves transmission of both first and second cultural systems in the curriculum.*

It would be more convenient if we were dealing with a "neater" subject matter, but ignoring complexities which we know to be present must predictably yield simplistic and invalid results. Discovering which of these complexities are not significant for second-language acquisition and may thus be ignored is a matter to be decided by empirical research, not by a priori assumption or convenience.

The distinction which Krashen makes between unconscious "acquisition" and conscious "learning" has some interesting and perhaps useful implications for language "instruction,"* but might also contribute to misunderstandings about teaching foreign languages to children. In this and some other recent papers, there is the renewed suggestion (also common in the heyday of "progressive" early childhood education) that children will "catch" a second language by exposure, much as they catch the measles or chicken pox. This does seem to happen in cases where isolated children have been immersed in a foreign language (as when a family moves to another country) and learned it, but groups of non-English speaking children in the United States required to "sink or swim" in English-only instruction have proved it is quite possible to tread water through years of exposure to the language without acquiring fluency in comprehension or use. (Note the similar experience of Finnish immigrant children in Sweden recently reported by Skutnabb-Kangas and Toukomaa, 1976). That "method" has failed, and should not be revived. Thanks to the *Lau vs. Nichols* decision, it is not even legal in this country.

An important distinction made in research, but often overlooked by those interpreting it, is between the *simultaneous* acquisition of two or more languages by young children vs. *sequential* acquisition. While there does appear to be a relative order of difficulty in the acquisition of several aspects of the English grammatical system which is independent of the language which the learner speaks, there are also many points where the learner's native language does influence second-language performance ("interference") when acquisition is sequential. For instance, it is common to hear six-year-old

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* *The distinction which Krashen makes between "acquisition" and "learning" is very similar to the distinction which Hall (1959) makes between "informal" and "technical" learning for all aspects of culture.*

Spanish speakers who are learning English say, "I live at Olivera Street," "I wash the hand," or "the car of my father," and young Navajo speaking students frequently omit the English copula and fail to distinguish pronoun number, case or sex. The Navajo-English data might be considered ambiguous, since these may be considered a result of developmental errors rather than (or in addition to) interference from Navajo grammar, but the evidence for Krashen's claim that an adult Chinese speaker learning English fails to inflect third person singular verbs because this is the kind of developmental error made by children acquiring English is also ambiguous, when the Chinese language lacks this inflection--to say the least.

In any case, it seems particularly important to clarify that data showing similarities in order of acquisition for adults and children involve children who are also learning a second language subsequent to learning their first. There is no reason to believe that even four- or five-year-old children learn a second language as they did their mother tongue, nor as they would have learned it if reared bilingual from infancy, although some similarities in the process have been documented.

The aspects of Krashen's presentation which I consider most relevant for the education of children are: (a) that language acquisition requires meaningful intake and (b) that acquisition seems to occur best when language users focus on the message and not on the form. The need for meaningful intake is proof in itself that teaching methods do make a difference, and his second point coincides with other evidence that a second language is learned better when it is the medium for teaching something else (such as science or social studies) than when it is the object of instruction in and of itself.*

Although research on second-language acquisition does not yet offer definitive answers to educators concerned with teaching children** (I have not attempted here to review all of the relevant research), I feel the following recommendations are warranted and timely based on our present state of knowledge and my own personal experience.

METHODOLOGY

1. Instructional input should represent fairly natural language, but the language should be simplified and structured

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** These data include the report of Ramirez and Stromquist (1978) that children learn English better from teachers who spend more time questioning and explaining concepts than from those who emphasize modeling (repetition, imitation and other structural drills), and positive reports on the Canadian immersion programs (e.g., see Swain, 1978).*

***See Tarone, Swain and Fathman (1976) for a similar view of research limitations.*

to enhance successful processing and production. Additionally, the pace of instruction should be controlled.

2. Opportunity for review and repetition should be provided, but it should always be in meaningful contexts.

3. Reading and writing are important in developing verbal fluency and should receive ample attention, beginning as early as possible in the program.

4. Oral production on the part of students is not necessary for language learning to be taking place; its primary value is probably in stimulating input from others. Classroom practices should allow for periods of passive acquisition. Shy students (or students whose culture dictates against trial and error performance) should *not* be forced to speak.

5. Instruction should be individualized to allow for intragroup differences which are due to socio-cultural or personality factors. Stereotyped expectations regarding learner capabilities should be carefully avoided.

6. Language learning activities should include opportunities for children learning a second language to interact with children who are native speakers of that language (this argues against segregative "immersion" practices).

MATERIALS DEVELOPMENT, PUBLICATION AND SELECTION

1. Students' motives for attempting to acquire the second language, and those of their parents, should be taken into account when planning learning activities and selecting instructional materials.

2. Content of materials should be integrally related to other aspects of the curriculum.

3. Primary concern should be placed on learning of vocabulary and concepts, and on development of reading skills. Translation should be provided to facilitate this.

4. Language input should be progressively more complex, but meaning should not be sacrificed to structural control. Language lessons should always contain meaningful content.

5. Meaningless and mechanical drills are largely a waste of time, as are extended dialogue memorization activities.

TEACHER TRAINING

1. Teachers should be made aware of the wide range of possible psychological, social and cultural factors which may influence second-language acquisition. They should be trained to collect relevant personal and cultural information about their students, and to make pertinent observations about classroom interaction and school/community social organization and values.*

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* *I have suggested methods for training teachers to collect and utilize socio-cultural information about their students in* A Guide to Culture in the Classroom *(Saville-Troike, 1978).*

2. Teachers should learn a variety of methods for teaching language--*and for teaching content through language*--and develop sensitivity to individuals' and groups' differential responsiveness to each.

3. Teachers should be informed about research on key questions in language teaching, including points of current disagreement and uncertainty in the field.

ADMINISTRATION

1. The goals or objectives of language instruction should be considered relative to the psychological and socio-cultural characteristics of students and the larger social context, and their formulation should be a process which involves parents and community to a significant degree.

2. When the foreign language being taught is the dominant national language (such as English in the United States), children should be offered program options which do not threaten growth and maintenance of their native language.

3. No single language program or type of language program should be considered "best" for all children. Alternatives should be provided, and psychological and socio-cultural characteristics of individual children and the community taken into account for student assignment. Assignment of students to such curricular options as Foreign Language in the Elementary Schools (FLES), immersion or bilingual education should be an informed decision based on an awareness of the complex effects of these characteristics on program outcomes (for individual children and for groups).

FURTHER RESEARCH

1. Research design for experimental studies should either: (a) be complex enough to include a wide range of psychological and socio-cultural characteristics (of students, teachers, school, community) as independent variables, with methods, materials and programs (treatment conditions) as dependent variables, to perform regression analyses so the relative salience of independent variables under different treatment conditions can be determined and to report data for subsets of students as well as for the "average"; or (b) be of more limited scope, but with variables clearly identified and described so that the results may contribute cumulatively to a larger complex grid.

2. Ethnographic methods should be utilized for qualitative and in-depth descriptions of the dynamics of various classes under different conditions as a necessary complement to quantitative studies.

3. Much more information on language pragmatics in native language acquisition is needed as a source of content for curriculum development.

I do not accept the negative conclusion that research on second-language learning has nothing to contribute to improving second-language teaching, but I do believe that learning, like language, does not exist in a vacuum, and that applied linguists must recognize this fact if their research is to have any significance.

Implications of Current Research On Second-Language Acquisition For Teaching Foreign Languages In the United States

Albert Valdman

INTRODUCTION

The last decade has seen the demise of the audio-lingual method in foreign language (FL) instruction. I am using the term audio-lingual method in a technical sense to refer to pedagogical approaches which (a) assign a high value to the attainment of a high level of communicative ability on the part of the learner and (b) follow procedures based on behavioral psychology and structural linguistics, e.g., imitation-memorization, operant conditioning, linear sequencing of learning units, pattern drills, etc. While the psychological and linguistic bases of the audio-lingual method have been discredited, the baby has not been thrown out with the bath water. The attainment of a certain degree of communicative ability at all levels of FL instruction remains a desired goal. In fact, it is precisely because the audio-lingual method generally failed to attain this goal in the normal academic setting that it fell into disrepute.

As Kelly (1969) reminds us, the development of an art--and FL teaching is assuredly an art rather than a science--is cyclical. Viewed from a short-term perspective, say, the last two decades, FL teaching doctrine appears to have taken a dialectical course: the audio-lingual method may be viewed as an antithetical reaction to grammar-translation-reading (GTR). In turn, the so-called cognitive-code approach of the late 1960s is a rejection of overemphasis on outward form and of the behavioral model of learning. Finally, stress on communicative competence developed from a broadening of the frame of reference in regard of the narrow focus on linguistic structure shared by both structural linguistics and generative-transformational grammarians. But from a higher vantage point, say, that of the FL teaching historian in the 25th century, our period is marked by a spiral development leading to the recognition of the primacy of the communicative function of language. The present period would no doubt be perceived as the crest of the active language skills phase of a cycle--the first part of which was the GTR movement. Professional journals abound with articles advocating the imparting of genuine communicative ability and proposing techniques that claim to render that end attainable even in beginning levels of instruction. The following statement by Lantolf (1977) is characteristic of the exponents who stress communicative ability. "If...we develop a curriculum based on the creative nature and communicative purpose of language, we can offer students a unique learning experience--a learning experience which encourages them to experiment and challenges their cognitive abilities. We have something to offer all students, not just those who desire to become language specialists."

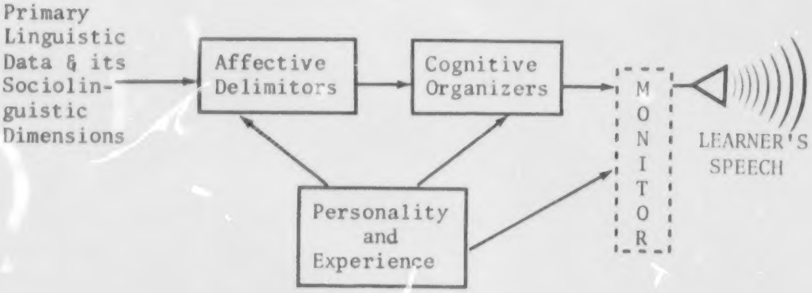
This challenge raises three questions. First, since communicative competence is the interface between semiotic systems (of which language is only one) and communicative situations, how could it involve centrally cognitive abilities? The latter would be brought into play more readily by FL courses that focus on linguistic analysis, such as GTR. Second, of what utility is communicative ability to students who do not aspire to be FL specialists? Third, is the acquisition of communicative ability a realistic goal given the social context of FL teaching in the United States and our present knowledge of the nature of second-language acquisition?

In this paper, I will attempt to answer the latter question drawing on Schumann's and Krashen's reviews of current research on second-language acquisition.

SECOND LANGUAGE ACQUISITION VERSUS SECOND LANGUAGE LEARNING

Both Schumann and Krashen accept the interactive-cognitive model of second-language acquisition that has evolved in the course of the last decade, and that is being submitted to extensive testing by a variety of longitudinal and cross-sectional empirical studies. Dulay and Burt (1977) provide the best characterization of that model.

FIGURE 1


Primary Linguistic Data & its Sociolinguistic Dimensions
Affective Delimitors
Cognitive Organizers
MONITOR
LEARNER'S SPEECH
Personality and Experience

Schumann underscores the importance of psychological and social factors (represented in the diagram by affective delimitations and personality and experience) in determining the type and the degree of acquisition that may take place under natural circumstances, i.e. the acquisition of German on the part of migrant workers. He points out that for significant and relatively deviant-free second-language acquisition to take place, it must be accompanied by acculturation--learners must have the opportunity and the motivation to become members of the target language community. Clearly, the context of formal (classroom) FL instruction is not conducive to acculturation. Nor, it should be cautioned, is acculturation necessarily a suitable objective of general FL instruction. Schumann lists one exception to the necessary link between successful second-language acquisition and acculturation: intensive, special-purpose instruction, such as that provided at the Foreign Service Institute (FSI) and the U.S. Army language schools. In both instances, the absence of appropriate psychological and social factors was compensated by unusual instructional conditions: (a) intensivity of instruction--a minimum of 450 hours in 16 weeks at FSI and (b) control of the aptitude variable by means of "washout" of less skilled learners.

Krashen's Monitor Model provides an explanation for the absence of direct relation--often puzzling to FL teachers--between drills and other activities involving conscious attention to language structure and demonstrated communicative ability. He opposes language acquisition to language learning. The former is an unconscious process subject to affective and social factors. Language learning is more responsive to explicit procedures and conscious control. The reason audio-lingual method procedures such as pattern drills failed to lead to any significant level of communicative ability (as demonstrated by several well-publicized method comparison experiments [Smith and Berger, 1968]), is that they lead to *learning* rather than *acquisition*. The Monitor Model does provide for the reference to formal rules in second-language acquisition. While this monitoring reduces the number of grammatically deviant utterances produced by the learner, it may also have inhibitory effects on communicative ability.

The Monitor Model does not explicitly address an aspect of the relationship between learning and acquisition discussed by such notables as Pike (1960) and Palmer (1964). Pike postulated that no significant use of language could be demonstrated by learners until they had gained nucleation--a general awareness of the relation between key elements of the language. Palmer asserted that learners should not be allowed to produce any utterance in the target language until they had internalized (cognized, in his terminology) its structure. The importance of a preliminary processing stage and the effectiveness of FL teaching approaches that delay active production is supported by several experiments (Asher, 1972; Postovsky, 1974) and has been observed by Sorensen (1967) among Amazon Indian tribes:

> The Indians do not practice speaking a language that they do not know well yet. Instead, they passively learn lists of words, forms, and phrases in it and familiarize themselves with the sounds of its pronunciation...They make an occasional preliminary attempt to speak a new language in an appropriate situation, but if it does not come easily, they will not try to force it.

Internal processing appears to be an important aspect of second-language learning. Research is required to determine the relation between internal and overt learning and the precise way in which either of these, or both, are related to acquisition.

On the Desirability of Acquisition in FL Teaching

It is easy to come away from Schumann's and Krashen's reports with a distinctly pessimistic view about the level of acquisition that can be realistically attained in the FL classroom. As Schumann points out, FL teachers have no control over any of the significant variables of second-language acquisition: motivation, social context, attitudes, etc. Also, given the intimate link between second-language acquisition and acculturation, it is unrealistic to expect the attainment of any significant level of communicative ability in the ordinary FL classroom. The current emphasis on communicative competence appears incompatible with basic language instruction, and at the very least, that objective would prove to be a very costly one. The level of communicative ability attainable under ordinary classroom circumstances is relatively low, and emphasis on that objective requires special instructional features such as small groups of students, the simulation of natural conditions of language use, etc. The conclusions reached by both Schumann and Krashen suggest that FL teaching should retain its traditional stress on language learning and on analytic skills. In the sections that follow, I will outline a basic FL course that stresses realizable goals--language learning and the teaching of language concepts--while providing for some degree of language acquisition. But in that instructional scheme, language acquisition would serve an exemplar function only; there is no illusion about the learner's acquiring proficiency sufficient to use the FL for instrumental purposes.

The Nature of the Foreign Language Teaching Context in America

Any realistic set of FL instruction objectives must take into account the context in which foreign languages are taught; in the United States, there are strong social forces inimical to the study of FL. First, as a nation of immigrants, we have, until a very recent date, always viewed multilingualism as a threat to our unity and cohesion. Second, foreign language holds a marginal status as a school subject, and the dwindling number of students who elect to study a foreign tongue do so for ridiculously short periods of time. Whatever goals are chosen for FL study in this country, they must be attainable within a short period of time--two years in high school and one year in college.

THE "BASIC" FL LANGUAGE COURSE

Specific applications of current research on second-language acquisition bear directly only as special-purpose FL training or higher levels of instruction. Here, I would like to comment on some implications for "basic" FL instruction considered an integral part of the general education curriculum.

The lack of enthusiasm shown for FL instruction by what may be a majority of American students stems in large part from a wrong strategy of curriculum design. The nomenclature of college courses--beginning, intermediate, advanced--reveals that courses in which the majority of students enroll are viewed by FL educators as preparatory to further study. This misconceived strategy imposes on learners a mind-boggling amount of material without which, it is claimed, they would not be able to successfully handle higher level courses in which they will never enroll. The preparatory course will have generally succeeded in demoralizing and turning students off or convinced them that they have a mental block for the noble pursuit of FL learning. The "basic" part of the FL curriculum must be organized in terms of self-contained courses that will provide a body of knowledge, skills and attitudes of value to nonspecialized students. One may hope that these courses will whet their appetites and lead them to gain deeper knowledge of the language and the culture of the new linguistic communities to which they have been introduced. It would be more appropriate to call this new type of course "basic German" rather than "beginning" or "elementary German" to indicate to prospective clients its holistic nature. The content of the basic course should be compatible with students of average linguistic aptitude and teachable within 150 hours of instruction--two years in high school or one year of college.

Content

The emphasis on career-oriented education has left a heavy imprint, not on FL teaching practices, but on the declarations of leaders of our profession. The *ADFL Bulletin* has featured such articles as "What Can I Do with It?--Vocational Counseling for Language Students," "Russian for Business and Commerce," "Languages for the World of Work," "Innocents Abroad: Foreign

Language Learning and Use in the Overseas Community." There is no denying that the curriculum of the typical university FL department would be greatly rejuvenated by the addition of career-oriented offerings and special-purpose short courses. But given the monolingual bias of our society and the vehicular role of English in the world today, it is quixotic to hold out to *average* learners the promise that the knowledge and proficiency they will have attained at the end of one, two or three years of study will equip them to use the language in the performance of a skilled job or lead to significant professional advancement in a career. European foreign language learners are reminded of the desirability of an active control of the language they are studying by the numerous help-wanted ads that specify in-depth proficiency in one or two foreign tongues. As they study a language, they have the opportunity to travel and reside in countries where that language is spoken, or, by merely turning the tuning dial of their transistor radio or switching the channel selector of the television, they can experience immediate auditory immersion in the target language.

A factor that militates against instrumental goals in foreign language study is the overpowering status of English in the world today. That language is no longer the birthright of the so-called English speaking peoples, but the vehicular language of every educated person in the world who aspires to a profession that requires contact with persons who do not share his or her native tongue. Any American who travels abroad--for business or pleasure--will always encounter persons who speak his language, albeit with a different accent. The growing bilingualism involving English and some other language should be one of our major educational concerns and provides one of the most potent arguments for the study of foreign languages on the part of our youth.

If we abandon stress on communicative skills, what other alternatives are available? A return to GTR? The ability to decipher texts in a foreign language constitutes a specialized goal and does not belong properly in a curriculum stressing humanistic values. Training in listening comprehension? That skill entails a more global activity. Indeed, as was pointed out above, there is ample evidence that listening comprehension serves as an effective preparation for training in communicative ability. Thus, this approach to language learning is suitable only for extensive courses whose immediate objective is communicative ability rather than analytical knowledge of the language. The alternative that recommends itself as truly basic is an approach involving direct attention to language structure and to the nature of culture, as well as discussion of the culture of the target language community. Since I am a linguist, I will limit myself to a discussion of the study of language structure. However, what I say about the role of language analysis and its relationship to the acquisition of language skills applies, *mutatis mutandis*, to the study and analysis of culture.

The Contribution of Language Study

I am not recommending a return to GTR. As its label indicates, that approach viewed language analysis as a means to develop the student's ability to gain understanding of FL texts endowed with cultural prestige, in other words, classical literature. What I am advocating is the study of language structure as an independent aim.

Neither am I proposing that we turn beginning language instruction into courses in introductory linguistics. The study of language structure within the framework of a basic language course aims to lead students to reflect on the phenomenon of language and to become acquainted with its pervasive character--its multifarious links with culture and society. The stress would not be placed on linguistic structure *per se* nor on theoretical models and formalism, but on the functional aspect of that wondrous ability that distinguishes man from God's other creatures.

Despite innovations in the teaching of language arts and of English, high school and college graduates carry, as part of their educational baggage, a parcel of myths and misconceptions about language, its nature and its function. The FL classroom provides a more suitable environment for debunking these myths. Issues, such as that of correctness, that are intimately linked with personal beliefs and social status, may be discussed dispassionately and are less likely to strike a sensitive nerve when they involve an alien tongue. Also, FL data is more easily objectivized because of its very foreign-ness.

Traditional grammarians often equate knowledge about language with the acquisition of a certain metalanguage. It is indeed the case that many students in college FL courses do not know the difference between a noun and a verb or cannot tell a predicate nominative from a complementary infinitive. The educational deficiency does not reside here in ignorance of terminology, but in a lack of awareness of--and sensitivity to--syntactic functions due to insufficient grammatical analysis in the English classroom. This deficiency may be remedied in a variety of interesting ways in the FL class. Carl Ziegler (1974) has devised an introduction to the study of German in which students learn Germlich, a hybrid artificial language composed of English words obeying the rules of German syntax. Germlich trains students to differentiate noun cases and, through the complex system of agreement between articles and nouns, acquaints them with the arbitrary constraints that are part of the price that must be paid by human beings to signify their membership in a given linguistic community. Familiarization with grammatical and semantic concepts may be accomplished by means of more conventional techniques, but all pedagogical approaches must underscore contrasting a feature of the target language with the corresponding feature of the native tongue. The emphasis must not be on grammar analysis as a means of facilitating the acquisition of communicative ability, but for its own sake as an illustration of the impressive variety of complex and delicate devices language puts at man's disposal to express logical relationships, to highlight parts of a message, to transmit subtle connotations.

No doubt the greatest contribution FL study can make to general education is in instilling linguistic tolerance by a demonstration of the nature of language variation and by an exploration of the functions that variation serves. In order to meet this goal, basic FL courses must, on the one hand, be free of puristic bias, and on the other, they must make the learner aware of the relationship between language variants and social organization. The notion of correctness is a difficult one in language study. What must be conveyed is that there is no immutable ideal *correct* form of any language. Languages manifest themselves in the form of variants, each of which is fully formed and adequate to perform certain functions for certain subgroups of a linguistic community.

THE PLACE OF ACTIVE LANGUAGE SKILLS

There is no contradiction between advocacy of emphasis on analysis and discussion and commitment to the imparting of active FL skills. As Hall (1950) put it: "Language is the noises we make with our face and not the scratches we make with our fist." A basic FL course must provide students with an opportunity to learn to interpret new and strange noises and to produce them in constructing messages designed to achieve communication. This type of active use of language is designed to provide some experience in communicating by means of another language. There would be no attempt within the boundaries of the basic course to present *all* of the structural features of the language or even all of the *major* structural features and the fundamental vocabulary. If FL study is to merit its inclusion in the educational core, it should provide training on how to learn a FL. This training would be put into practice whenever the learner experienced the need or the inclination to acquire in-depth proficiency in any language. This aim cannot be realized unless the FL classroom provides experience with the use of language for communicative ends.

The skill component I envisage might be characterized as a "little" language (Valdman, 1975, 1978):

> ...[a language] within which the learner can take the initiative without producing too many errors. For wide coverage of language needs with minimum error production, each item in the little language should be psychologically justified, and should be easy to pronounce and spell, morphological features should be regular, and the items should enter into predictable syntactical relationships.

As the emphasis on error reduction in the above quotation underscores, a "little" language is not the pidginized variety of the target language that one hears in the mouths of immigrants or persons who use another language for transitory purposes. While communication is the primary aim, it is not to be achieved without respect for the phonological and grammatical conventions of the language.

The implementation of the type of basic language course proposed here would require radical departures from present practices in curriculum, teaching environment, syllabus design, material preparation and teacher training. I will mention only two types of innovation: cyclical (as versus linear) syllabus design and different attitudes toward learner errors. I have discussed these at length elsewhere (Valdman, 1975, 1978), and here I will only deal with aspects of these innovations that relate to the distinction between second-language learning and acquisition drawn by both Schumann and Krashen.

Present FL materials are, on the whole, based on linear grammatically-based syllabus designs. Sample FL texts that form the framework of first- and second-year texts serve to "seed" grammatical features that are "taught" in particular units. Grammatical features are organized sequentially, and it is assumed that students internalize them after explanation and intensive drill. Some FL methodologists insist that students not be allowed to progress from one set of grammatical features to the next in the sequential order unless they have "internalized" them--internalization being defined as 90 percent performance in various types of tests. Grammatical features are also presented in large chunks: future tense, infinitival constructions, demonstrative pronouns and the like. In a cyclical, spiral syllabus, a given grammatical feature would be divided into many subparts, each of which would be presented at a different time interspersed with subparts of grammatical features. This way a given grammatical feature is presented over an extended period of time, the introduction of a new subpart permitting review of previously introduced subparts and allowing students to gain gradual control of the feature. A cyclical syllabus would also provide for the separation of phases in the introduction of grammatical features that would correspond to the distinction--implicit in Krashen's Monitor model--between conceptual awareness, learning and acquisition. Initially, by means of listening comprehension and explanation, students would acquire an overall grasp of the selected global feature and the differences shown for that feature between English and the target language. They would deepen their learning by means of a variety of manipulative activities, and eventually acquire effective communicative control in the course of meaningful use of the language. In fact, it may be that differences between the factors that determine learning and acquisition would be better reconciled by notional- or situational-based syllabi than present grammatically based syllabi.

Confirmed audio-lingualists and traditional grammarians share an insistence on complete control over material taught: phonology, grammatical feature or lexicon. Errors and deviancy, like sin, must be eradicated as soon as they appear. Only when students demonstrate total control of the typical grammatical habits of the target language will they be able to engage in communicative activities (Twaddell, 1975). Taken literally, this conception of the relationship between learning and acquisition would require that meaningful use of language be postponed until all the items in the syllabus had been fully learned. This view might be defensible within the framework of an intensive, special-purpose course. It is unrealistic, if not foolish, within the framework of a basic course. In the light of our ignorance of the factors that determine acquisition and of the links between learning and acquisition, it would be wiser to allow both processes to progress simultaneously, though differentially. In a basic course, students would be expected to demonstrate a higher relative proficiency in learning than in acquisition. Furthermore, student errors and inaccuracies should be tolerated in the course of communicative activities. Not only does inappropriate correction reduce student motivation, it also impedes learning, for, to cite an Italian proverb, *Sbagliando s'impara.*

CONCLUSION

A final note about communicative use of language and emphasis on language acquisition in the FL classroom. In view of the difficulty of simulating natural use of language in the FL classroom and the impossibility of controlling the variables that determine acquisition, our sights should be lowered. The communicative use of language within the framework of a basic FL course should be programmed for study or--better still--work abroad. Immersed in the target language community culture, the learners would find all the necessary affective and social elements that trigger acquisition. From a financial point of view, a combination of preliminary training emphasizing learning activities followed by immersion in the target language community would prove more economical than current attempts to reproduce artificial micro-FL universes in a classroom setting. The function of the basic course and of formal FL teaching in general would be to prepare students, both psychologically and academically, to gain maximum benefit from their immersion experience.

Second-Language Acquisition & Foreign Language Teaching

Rosario C. Gingras

INTRODUCTION

The central issue around which there is much controversy is the nature of so-called "skill-getting" (Rivers, 1972) activities--activities that allow students to acquire competency in the L_2. While definitive answers to questions raised by the problem of specifying appropriate "skill-getting" activities awaits further research, sufficient research has been undertaken to provide FL teachers with general directions for identifying a limited number of activities that appear to promote second-language acquisition. Such directions and practices are discussed infra.

The Acculturation Model

One of the most important research findings was summarized by Schumann with his Acculturation Model: "language learning is not a matter of method, but is a matter of acculturation, and where acculturation cannot take place...we cannot expect to achieve much more than we are now [achieving] in our foreign language programs." While this may appear overly pessimistic, it underscores an important fact of life for the FL teacher: Unless certain social and affective factors are taken into account, the end-product of FL teaching cannot be expected to be an L_2 speaker with native-like proficiency. Schumann suggests that social and affective conditions lead to *acculturation*--the social and psychological integration of the learner with the L_2 language group. Schumann, in fact, claims that the "learner will acquire the L_2 only to the degree he acculturates." Most FL teachers are aware that acculturation is often not one of the

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goals of U.S. FL students. However, if acculturation is not a goal of FL students, it does not necessarily follow that FL students do not have other goals that are both realistic and desirable. While the role of researchers in the field of second-language acquisition is not to specify goals in FL teaching (these should be determined by FL teachers), current research in this field indicates that "perfect bilingualism" may not be a realistic goal. Consequently, Schumann's observation on the relationship between the attainment of proficiency in the L_2 and acculturation should be taken as a suggestion to circumscribe what is not realistic or attainable and concentrate on what *is* possible in the classroom. Schumann's Acculturation Model--while very valuable in describing the processes that second-language learners undergo in a second-language context (one where the L_2 is in use in the community outside the classroom)--does not speak directly to the problems confronting students in a foreign language context (one where the L_2 is confined, for the most part, to the actual FL classroom). Consequently, the Acculturation Model cannot be used directly for purposes of formulating a methodology for FL instruction.

The Monitor Model

Another important research finding was presented by Krashen's Monitor Model. This model--although developed within the context of second-language study--makes claims that are of particular interest to FL teachers.

The Monitor Model's basic premise is that there are two distinct systems for "internalizing" rules of an L_2: An implicit approach, termed subconscious language *acquisition*, and an explicit approach, termed conscious language *learning*. Implicit language acquisition is similar to the way that young children learn their first language, and frequently, their second language. It is also the way many adults learn a second language in informal, nonclassroom situations. The Monitor Model claims that performance in the L_2 is based on acquired knowledge (on language acquired implicitly). Language learned consciously (explicitly) is available to the L_2 speaker *only* as a "monitor" to modify the output of the acquired system under certain conditions. As such, one of the effects of the Monitor (or the system of explicitly learned language) is to improve the accuracy of the acquired system. If the goal of the FL classroom is the ability to communicate in the L_2 (communicative competency), then it follows from the Monitor Model that careful attention has to be paid to how the FL student can acquire language implicitly. This is not to say that explicit language learning is not important. The role of explicit language learning is limited in respect to L_2 speech production and would appear to maintain an ancillary role. Specifically, the Monitor Model claims that explicit language learning does not lead directly to proficiency (and the ability to communicate) in the L_2.

Language learning is promoted by explicit attention to form: rules and word-shapes. Many of the activities traditionally used in the classroom are directly involved with language learning (as distinct from language acquisition), and the Monitor Model claims that proficiency in speaking an L_2 cannot be attained by explicit language learning. This does not imply that explicit language learning is not without value to FL students. Explicit language learning plays an important role in those activities where there is sufficient time to monitor (the acquired system) and where the form of the message must be attended to. Such activities are exemplified by writing and prepared speeches. While "correct" speech is an important goal in the FL classroom, the overuse of conscious grammatical rules (the overuse of the Monitor) impedes fluency in the L_2. The overuser of conscious rules (the learned system) spends too much time concentrating on the form of the message and consequently is unable to communicate effectively in the L_2. Krashen suggests that optimal users of conscious rules are those who "monitor" when there is time and "monitoring" does not interfere with communication. It was suggested that teachers' overcorrection of students' L_2 production might lead to overuse of the monitor with the concomitant interference in communication.

SECOND-LANGUAGE ACQUISITION AND FL TEACHING

Vocabulary and Pronunciation

Although explicit language learning has been characterized as being ancillary to the language acquisition process (which itself is fundamental to L_2 proficiency), *explicit* language learning plays a very important role in the FL classroom. In particular, the teaching of vocabulary and pronunciation appear to be taught most efficiently if taught (and learned) explicitly. As will be discussed, one of the keys to language acquisition is understanding messages in the L_2. Understanding can be aided by the early internalizing of vocabulary as well as by direct guidance to the surface phonetic system of the L_2. Research suggests that the early learning of vocabulary is of great importance since such early learning appears to facilitate the comprehension of listening activities which serve as significant adjuncts to the acquisition process. The importance of the learning of vocabulary items has long been recognized by virtually all FL teachers and probably overemphasized by many FL students to the point that it is naively assumed by them that the L_2 consists merely of lexical items. The understanding of vocabulary items is an important ingredient in understanding L_2 utterances. Since whatever aids in comprehending utterances in the L_2 is an important factor in the overall approach to language acquisition, it follows that careful attention be paid to the explicit instruction of vocabulary in the FL classroom. Second-language acquisition researchers seem to agree that the early learning of vocabulary is of paramount importance, but further research is called for in order to determine just how such vocabulary ought to be presented to the FL student.

The teaching of pronunciation (in particular, the articulatory processes involved in the L_2) is important in that it allows students to both recognize and produce the vocabulary items they are being exposed to. The teaching of pronunciation is not the same thing as the teaching of the L_2's phonological system. While gross features of the phonological system such as intonation patterns and important articulatory characteristics can be explicitly taught (and probably learned), the more subtle complexities of the L_2 phonological system probably have to be acquired (in the technical sense discussed above). For example, the complexities of the phonological system of Spanish that directly relate to the tense-verb system (which involve such rules as diphthongization and vowel-raising) have to be acquired implicitly--FL students can be readily taught to describe such rules (as a result of explicit language learning), but the actual use of such rules in the production of utterances in Spanish depends on such rules having been acquired implicitly. Perhaps the most dramatic distinction between language learning and language acquisition occurs in the teaching of the so-called radical-changing verb-stems in Spanish. Certain verbs such as *dormir* (to sleep) undergo root-vowel modification producing such forms as *duermo* and *durmamos*. It has been assumed in many Spanish language classes that explicit instruction of such phonological changes are internalized by the students. Students explicitly learn the forms and may well be able to describe and discuss such vocalic alternations correctly; however, since such explicit instruction does not lead directly to language acquisition, students will seldom be able to produce the appropriate vocalic changes in meaningful discourse without having to focus on the form of the verb (rather than focussing on the message trying to be conveyed). In fact, it can be safely predicted that students will make many errors in just this part of Spanish grammar since complex phonological processes probably have to be acquired--and such acquisition takes a considerable amount of time. Pronunciation instruction is probably best limited to explicit instruction that allows the students to recognize and produce recognizable instances of the vocabulary items they will be learning. The goal should be recognizable pronunciation, but *not* native-like pronunciation which is probably beyond most students' ability (interest and temperament) once such students become adults.

Error correction, a traditional hallmark of the FL classroom procedure, is of particular significance in explicit language learning, but of little or no import in implicit language acquisition. This appears to be of major significance to the FL teacher, but should not be understood as implying that error correction plays no role in the FL classroom. Rather, classroom activities should be seen as either language learning or language acquisition opportunities and error correction should be limited to such activities that lend themselves to explicit language learning. As noted, explicit language learning plays an important role in the FL classroom--particularly in the learning of (surface) pronunciation and vocabulary items. The FL instructor should resist the temptation to correct all errors produced by FL students, since this might lead students to over-rely on the explicitly learned system and pay undue (and, at times, inappropriate) attention to form rather than meaning. Thus, current research appears to indicate that error correction plays an important role only in *explicit* language learning, and should be limited to just those activities that can be identified as promoting explicit language learning.

Manipulative-Mechanical Drills

Current second-language acquisition research appears to show that manipulative-mechanical drills play little part in the implicit language acquisition process. It is not clear just what role such drills ought to have in the FL classroom. In traditional audio-lingual methodologies, the role of manipulative-mechanical drills is central to the FL teaching process. Manipulative-mechanical drills are seen as either providing an opportunity to practice a rule that has been explicitly taught (and which leads to automatic control over such a rule by virtue of being practiced mechanically) or as deriving a rule inductively by manipulating structures that contain such a rule while allowing students to take the first steps to automatic control over such a rule by having practiced it. It seems reasonable to assume that mechanical drills allow FL students to practice pronunciation of the L_2 and as such ought to have a role in the FL classroom. It also seems to be the case that mechanical drills may be an aid in explicit language learning--although the evidence is not clear on this point. What is most questionable is whether mechanical drills as part of "skill-getting" activities involving pseudocommunication (Rivers, 1975) contribute significantly to the language-acquisition process. It is clear that manipulative drills are not necessary for explicit language learning. (Traditional grammar-translation methods which concentrated on explicit language learning made little or no use of manipulative-mechanical drills.) At best, one could make a case for mechanical-manipulative drills being included in the FL curriculum by observing that such drills can provide limited input to the language acquisition system whenever such drills are meaningful ("pseudocommunicative") to practicing students. However, current research suggests that such drills are very inefficient in providing meaningful input. Probably the best justification for the use of mechanical-manipulative drills in the FL classroom (apart from their value in helping learn articulatory characteristics of the L_2) is that they provide a type of psychological security for many students since such drills require rather little from FL students.

Affective variables are of great importance and any activity that leads to a lowering of the "affective filter" has to be seen as being of great importance. Manipulative-mechanical drills arose as part of a behavioristic model of language learning. Research in linguistics as well as in psychology has led to a rejection of behavioristic models of language learning and to the adaptation of neo-rationalistic, cognitive models (rejection of behavioristic models is not universal and is still a subject of debate). The idea that one can acquire an L_2 by *practicing* is a derivative of behaviorism. Today, it is assumed that one can acquire an L_2 by *understanding* (comprehending). Consequently, the role of mechanical-manipulative drills is ambiguous at best. What should be clear to FL teachers is that such drills play a marginal part in language acquisition, and should be used for purposes of teaching pronunciation and perhaps for purposes of allowing FL students some degree of security in the FL classroom. Under no circumstances should FL teachers assume that mechanical-manipulative drills contribute significantly to the acquisition process. Perhaps the biggest difference between audio-lingual methodologies and methodologies suggested by current research lies in the difference between the roles played by mechanical-manipulative drills. There appears to be little justification (other than that noted above) for emphasizing such drills in today's FL classroom. Unless research turns up evidence to the contrary, it appears that mechanical drills (of which "pattern practice" drills are the best known) will play less and less of a role in the FL classroom, except perhaps as ancillary to the teaching of pronunciation.

Communicative Competence

Although current research in second-language acquisition juxtaposes language learning with language acquisition, it should not be assumed that communicative competence in the L_2 (as part of the acquired system) is the only goal in FL instruction. Although goals of FL teaching have been debated for many decades, oral fluency in the FL is not the only possible goal for many FL students. For FL students whose prime goal is reading knowledge of the L_2, activities in the FL classroom might focus on explicit language learning (if it can be shown that language learning can lead to rapid learning of reading). Although current research has not yet focussed on this problem, it would seem reasonable to expect that activities that promote explicit language learning might be most necessary for FL students who want to learn to *decode* the L_2 and who have little need to *encode* it. There are probably other goals that might necessitate focussing on explicit language learning. As long as no one is under the illusion that explicit language learning will lead to proficiency in an L_2, realistic goals can probably be specified.

For many FL students, a most likely desired goal is proficiency in the L_2 in the four modalities: listening, speaking, reading, and writing. Current research has not addressed the issue of achieving proficiency in reading and writing; rather, the focus has been on listening (comprehension) and speaking (oral production). As discussed, proficiency in the L_2 is a by-product of the (implicit) language acquisition system. In order to facilitate language acquisition, there must be *meaningful interaction* in the target language in a context where the speakers (and listeners) focus on the message being transmitted and not on the form of such a message. It should be clear that in order to have meaningful interaction in the target language, FL students must be able to comprehend the lexical items and the syntactic patterns used in such an interaction (or can readily deduce the meaning from the context).

Apart from the need for having meaningful interaction in the target language, such interaction must be *natural* communication--communication appropriate to a given context, and where possible, of interest to FL students. Since the focus in language acquisition activities is on comprehension, it follows that topics with which students are unfamiliar should be avoided. For example, rather than focussing on dishes native to Ecuador (but unknown to most Americans) in a conversation pertaining to restaurants in a Spanish FL classroom, it might be better to focus on dishes found in American restaurants, which involve items familiar to students. If the topic of interaction sounds unnatural in one's first language, it will probably sound just as unnatural in the L_2. Unnatural topics or exchanges add to the burden of comprehension and do not aid in the language acquisition process. As a further example of an inappropriate exercise, consider the following (taken from the actual lesson plan of a student teacher):

T: *¿Cuántos zapatos tiene usted?*
(How many shoes do you have?)
S: *Tengo dos zapatos.*
(I have two shoes.)
T: *¿Cuántos zapatos tiene usted?*
(How many shoes do you have?)
S: *Tengo tres zapatos.*
(I have three shoes.)

Apart from the fact that one normally does not ask relative strangers how many shoes they have (either because the answer is obvious or because the question is considered impolite), one certainly does not expect the answer to be "three shoes." In the above exercise, although the aim was to practice numbers, rather unnatural responses resulted. It is questionable just how valuable this type of exercise would be for purposes of language acquisition.

In audio-lingual methodology, it has become quite common to suggest that a "communicative" activity conclude the class-period as a way of allowing students to practice whatever had been drilled. It cannot be over-emphasized that activities that are meant to be conducive to language-acquisition are the central activity of the FL classroom (where proficiency in the L_2 is the primary goal). In no way should such activities be regarded as concluding activities to a period of "pattern practice."

Active-Listening

One type of classroom activity that appears to provide opportunities for language acquisition is referred to as "active-listening." This type of activity may be either a teacher-initiated monologue--including the use of recorded segments of language on tape, film, videotape, or phonograph--or teacher-student conversations (where the teacher carefully controls the language used) which become a listening activity for the other students in the class who are not directly participating in the conversation. In this type of activity, students should be able to understand the conversation (or stretch of L_2 utterances), or at least most of it. The vocabulary items should be known by the students (as a result of previous presentation) and the context of the conversation should provide enough hints so that students understand what the conversation is about. Visual presentations (such as film or videotape) are particularly good for "active-listening," provided the language is not beyond the students' comprehension. Students should give some evidence they understand the conversation presented by way of short answers in the L_2, or even by allowing responses in the native language if students feel very uncomfortable producing utterances in the L_2. Students must be allowed ample opportunity to use the L_2 even if only in the limited way of listening to it.

The importance of listening activities has been underscored by researchers: comprehension should precede production. Since children typically undergo a period of silence while learning a first or second language, it appears that there is a period of time when the first or second language is comprehended before speech production occurs. It seems that a period of time is required to develop a sense of confidence that the hypotheses made about the language heard might be correct. It also seems that adults need a period of time to become "familiar" with an L_2 before they feel comfortable about their hypotheses behind the language being heard. What is of great importance to FL students is that they start to use the L_2 for communication, however limited the performance in the L_2 might be at first. FL teachers can help students during the initial stages of instruction by providing activities that allow "constructive" silence. Active listening activities can perform this function. Krashen points out that requiring performance in the second language before the student is ready may result in overuse of the "monitor" (reliance on the learned system), which in turn may impede fluency in the L_2. This does not mean that students can be or should be expected to sit in the classroom like proverbial "bumps on a log" until ready to say something in the L_2. Vocabulary learning and pronunciation exercises can be started from the first day of instruction. Students can certainly participate in active listening activities and should be encouraged to respond in short answers in the L_2, in L_1 utterances, nonverbal gestures, or any combination thereof.

Language Input and Intake

Current research findings indicate that not all language *input* can serve as *intake* for language acquisition. Language input is whatever utterances in the L_2 students are exposed to. Intake refers to L_2 instances that can serve the purpose of language acquisition and require minimum understanding by students. It appears that L_2 speech has to be modified in certain ways if it is to serve as intake for acquisition. Several studies of the modification of adult speech in the interaction between adult and child suggest that such modifications are helpful to the child learning his first language. These studies of "motherese" or "caretaker" speech give hints as to the direction that FL teachers might take to modify speech in the classroom. Krashen points out that the salient characteristic of caretaker language is that it is used to help children understand, not to teach children language. Adults usually modify their speech by (a) constraining it to the "here and now" (speech is deictic and iconic); (b) using short, simple sentences that become more complex as the child matures; (c) repeating frequently; (d) slowing the rate down by inserting pauses; and (e) focussing correction on the message, not on the form. Since these characteristics of caretaker language appear to help in comprehension (which is a necessary condition for language acquisition), it seems that the modification of adult speech along the lines of caretaker language might increase the probability that the acquirer will understand what FL teachers are saying, hence increasing the likelihood that language acquisition will take place. Note that it is not being suggested that FL teachers speak to students as if they were young children. Rather, it is suggested that FL teachers modify their speech in the direction of caretaker language in order to increase comprehensibility. In order to provide opportunities for comprehension and acquisition, speech should be at the students' level of comprehension, restricted to topics and settings that allow for comprehension, at the level or slightly in advance of the level of grammatical development of the students, *progressively* more complex (structured, not random), repeated frequently, and at a normal rate (the flow of speech can be slowed by inserting pauses between major constitutents of the speech-utterances).

CONCLUSION

In summary, current research in the field of second-language acquisition appears to validate many of the practices found in contemporary FL classrooms. The Monitor Model with its basic distinction between language acquisition and language learning points to the need for re-examining goals in the FL classroom. Activities in the classroom have to be identified as either promoting language acquisition or language learning. Explicit language learning, while not directly transferable to proficiency in the L_2, plays an important role in the FL classroom, particularly where the emphasis is on accuracy as in writing. Manipulative-mechanical drills are seen as being of marginal use. Where proficiency in the target-language is seen as the primary goal of the FL class, then the focus should be on those activities that are conducive to language acquisition. Activities and speech modification that lead to greater comprehension on the part of FL students are seen as highly desirable since comprehended speech facilitates appropriate input for acquisition.

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